CHAPTER 2: RESOURCE MANAGEMENT ALTERNATIVES

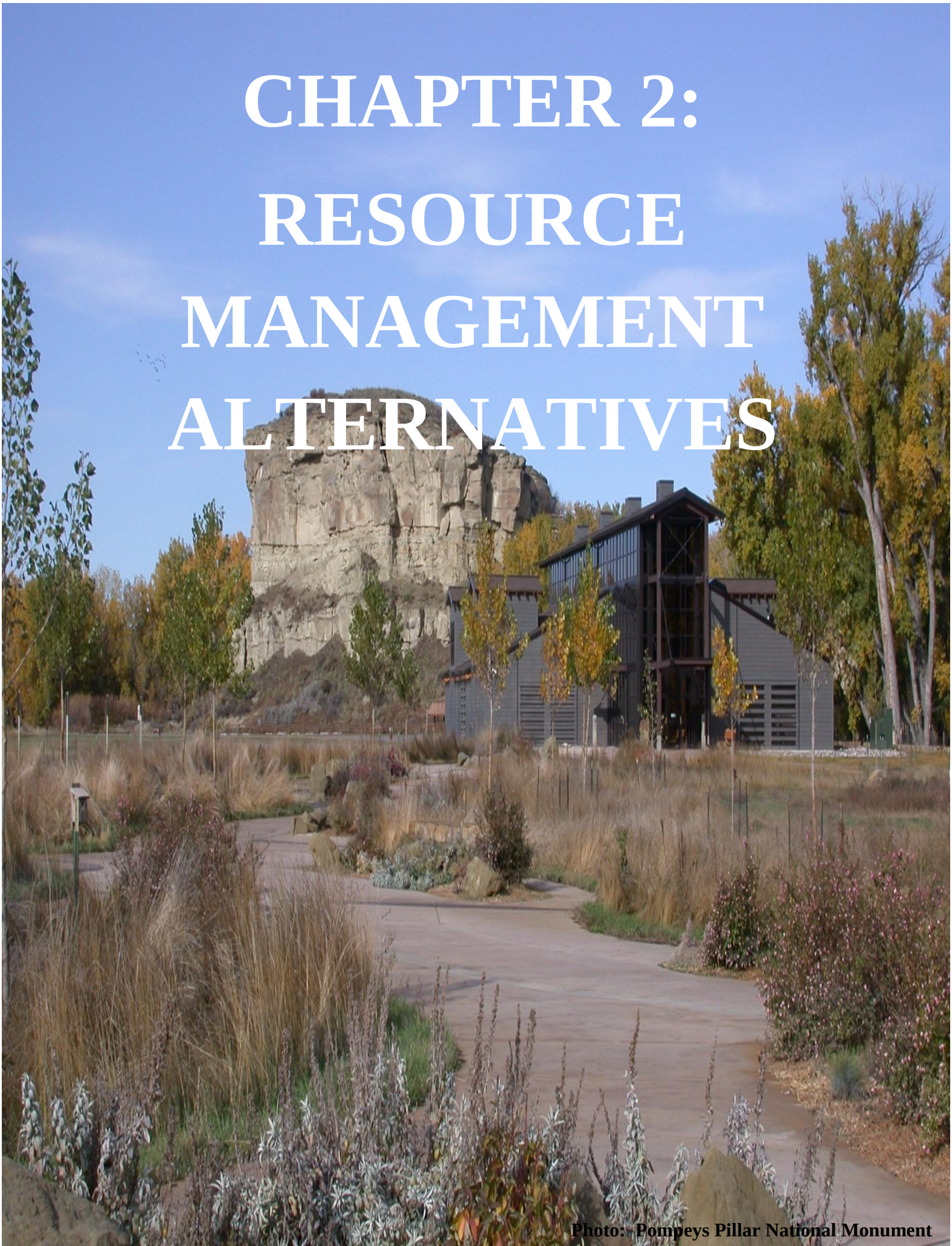

Photo: Pompeys Pillar National Monument

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2 Description of Alternatives

2.1 Introduction

Chapter 2.0 begins with introductory material describing the development of alternatives and then moves to the presentation of the management actions for resources, resource uses, and resource management programs encompassing 32 topics. Information is presented in the same sequence in Chapters 3.0 and 4.0 for each of the topic areas. Several of the categories contain subsections that focus on particular aspects of a resource program.

This chapter contains alternatives that describe different approaches to the management of public lands and resources in the planning area. Each alternative represents a complete and reasonable set of goals and management actions to guide future management of BLM-administered public lands and resources in the planning area.

This chapter describes and compares four alternatives for managing BLM-administered lands and their resources within the Billings Field Office (BiFO) and Pompeys Pillar National Monument (PPNM). These alternatives are identified as Alternative A, Alternative B, Alternative C, and Alternative D. The No Action Alternative (Alternative A) represents the continuation of current management direction and proposes no new plan or management actions. This alternative is required by Council on Environmental Quality regulations and provides a baseline for comparison of the other alternatives (Council on Environmental Quality 1981). The BLM Billings Field Office developed the action alternatives (B, C, and D) by considering issues and concerns raised during the public scoping period and through planning criteria and guidance applicable to management of resources and resource uses. The three action alternatives (B, C, and D) describe proposed changes to current management as well as the existing management that would be carried forward into future management. The alternatives constitute a range of management actions that set forth different priorities and measures to emphasize certain uses or resource values under the multiple use sustained yield mandate to achieve the identified desired outcomes (goals and objectives) for each resource. These alternatives provide a range of choices for resolving the planning issues identified in Chapter 1.0.

Evaluation of a reasonable range of alternatives is required by the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations (CFR) Part 1502.14), as well as by BLM planning regulations. As required in the CEQ regulations, the reasonable range must include a "no action" alternative (CEQ 1981, Question 3.A) which is the continuation of current management under the Billings Resource Area Resource Management Plan (RMP) and Record of Decision (ROD) (1984), as amended.

The BLM Billings Field Office recognizes that social, economic, and environmental issues cross land ownership jurisdictions and that extensive cooperation is needed to actively address issues of mutual concern. To the extent possible, these alternatives were developed utilizing input from public scoping comments, cooperating agencies, and the Eastern Montana Resource Advisory Council (RAC).

This chapter is organized into the following sections:

- **2.2 Developing the Range of Alternatives** – describes the process and key concepts used to develop the range of alternatives considered in detail
- **2.3 Key Components of the Alternatives –** briefly describes each of the key components of the alternatives, including a description of desired outcomes, management actions, adaptive management, mitigation guidelines and land health standards
- **2.4 Alternatives Considered but Not Analyzed in Detail** – describes alternatives that were considered, but dismissed from detailed analysis
- **2.5 Summary of the Alternatives –** a brief summary of each alternative is presented in this section (Table 2-1 and Table 2-2)
- **2.6 Alternatives Considered in Detail** – includes an overview of each alternative considered in detail by program, as well as a comprehensive discussion of the various management actions and allocations for each alternative considered in detail in a tabular format (Table 2-6)
- **2.7 Summary of Environmental Consequences by Alternative** – describes the impacts of the alternatives and includes tabular comparison of impacts for the alternatives considered in detail (Table 2-7 and Table 2-8)

2.2 Developing the Range of Alternatives

The alternatives described in this chapter represent varying approaches to addressing and resolving key planning issues (see Chapter 1) and 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 that are anticipated to achieve desired outcomes. These two categories are discussed below.

The BLM complied with the National Environmental Policy Act of 1969 (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 RMP/EIS, including seeking public input and analyzing reasonable alternatives. Where necessary to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives, the alternatives include management options for the planning area that would modify or amend decisions made in the 1984 Billings RMP and ROD, as amended. Some decisions from the 1984 Billings RMP and ROD are acceptable and reasonable; in these instances, there is limited need to develop alternative management prescriptions. In some cases, management prescriptions are the same across all alternatives or may reflect only a decision to implement or not implement an action.

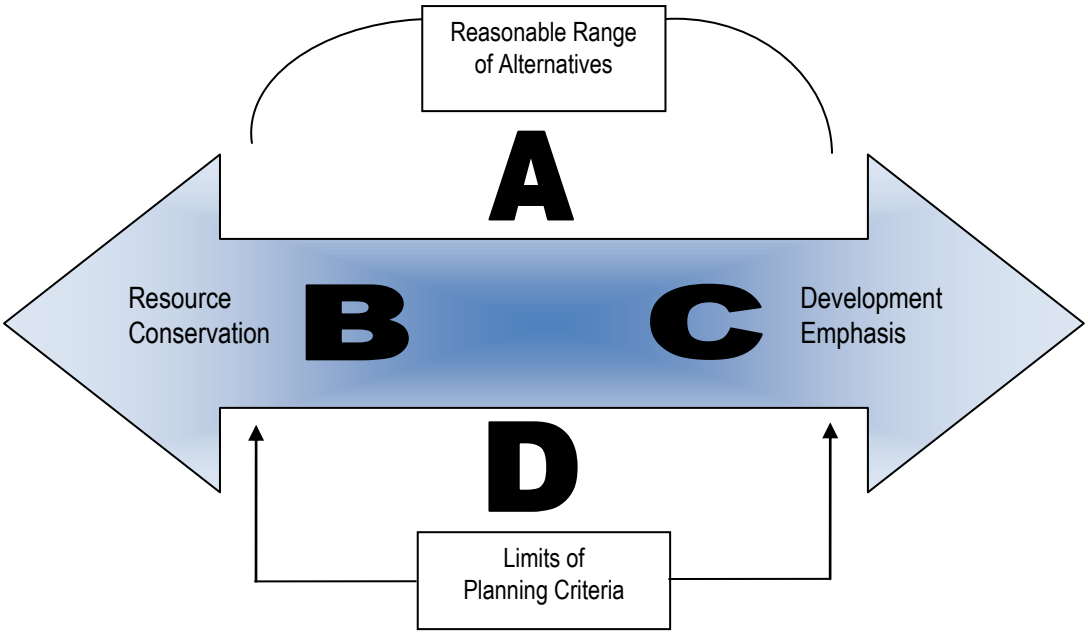
Public input received during the scoping process was considered to ensure that all issues and concerns would be addressed, as appropriate, in developing the alternatives. Comments

received during and after the formal scoping period cover a wide range of issues. The scoping process and its results, as well as opportunities for future public and agency involvement, are summarized in Chapter 5. The development of alternatives was initiated with compiling and analyzing Alternative A (No Action). Alternatives B, C, and D were then developed and analyzed.

Many of the decisions from the existing Billings RMP have been implemented. In some cases, implementation of these decisions established valid existing rights or other obligations that are important considerations in preparing the revised Billings and Pompeys Pillar National Monument RMP/EIS. For example, some oil and gas resources in the planning area are leased and some rights-of-way have been approved. The presence of these valid existing rights influences, and sometimes limits management choices. Specific to the oil and gas program, the alternatives in this RMP/EIS address the availability and allocation of lands for future oil and gas leasing, potential lease stipulations and additional mitigation to be considered and applied during the Application for Permit to Drill (APD) process. Mitigation measures and BMPs identified in this RMP/EIS would be applied to the APDs for new leases and could be applied to APDs from existing leases through subsequent implementation-level planning processes.

The BLM manages public lands and resource values in accordance with the principles of multiple use and sustained yield. Given these principles and the inherent conflicting nature of resource conservation and resource development, alternative formulation occurs within the limits of planning criteria that address the needs of present and future generations, while remaining flexible for periodic adjustments. This approach resulted in a reasonable range of alternatives that vary by their emphasis on allowable uses and management actions that affect conservation and development. For example, restrictions on oil and gas development in and around occupied greater sage-grouse leks may exclude or constrain one land use (i.e. oil and gas development) to protect another (i.e. special status species – wildlife). Of course, not all resources or resource uses are mutually exclusive, but rarely to actions beneficial to one resource benefit all of the other resources and resource uses that the BLM must manage. The multitude of resources within the planning area coupled with the requirement to manage for multiple use and sustained yield requires developing alternatives across a continuous spectrum from resource conservation to resource development. For example, Alternative B places more emphasis on resource conservation, whereas Alternative C places more emphasis on resource development. The remaining alternatives (A and D) fall in between B and C on the continuous spectrum, as shown in Figure 2-1.

Figure 2-1 Reasonable Range of Alternatives for the Billings and Pompeys Pillar National Monument RMP/EIS



2.2.1 Alternative Formulation

Once developed, the BLM analyzed the alternatives to determine their impacts on the environment and the degree to which each alternative met the desired outcomes (goals and objectives) identified for that resource or resource use. Based on the impacts analysis of these alternatives, along with knowledge of specific issues raised throughout the planning process, input from cooperating agencies and BLM resource specialists, consideration of planning criteria, and potential resolution of resource conflicts, the BLM has identified Alternative D as the Preferred Alternative. Each alternative provides a different emphasis for managing public lands and resources within the planning area, and each alternative represents a complete and reasonable RMP that (1) meets the purpose and need described in Chapter 1; (2) responds to environmental, operational, and economic concerns raised by the public, agencies, businesses, and other special interest groups during the scoping process; and (3) addresses potential environmental issues identified during review of the proposed management actions

The Preferred Alternative (Alternative D) indicates the agency's preliminary preference. The Preferred Alternative does not represent a final BLM decision and may change between publications of the Draft and Final EIS based on comments received on the Draft EIS, new information, or change in the BLM policies or priorities. The BLM selected the Preferred Alternative based on the following selection criteria:

1) Satisfy statutory requirements
2) Reflect the best combination of decisions to achieve the BLM goals and policies

3) Represent the best solution to the purpose and need
4) Provide the best approach to addressing key planning issues
5) Consider cooperating agencies and BLM specialists' recommendations

2.3 Key Components of the Alternatives

Alternatives described in this chapter represent approaches to addressing key planning issues (see Chapter 1) and 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.

2.3.1 Desired Outcomes (Goals and Objectives)

Goals and objectives provide overarching direction for BLM actions in meeting the agency's legal, regulatory, policy, and strategic requirements. Goals are broad statements of desired outcomes, but generally are not measurable. Objectives are more specific statements of a desired outcome that may include a measurable component. Objectives generally are anticipated to achieve the stated goals.

2.3.2 Allowable Uses and Management Actions

Allowable uses and management actions comprise the second category of land use planning decisions and are anticipated to achieve the desired outcomes (goals and objectives). Alternatives were refined to address planning issues, resolve resource conflicts, improve consistency, and ensure resource-specific decisions for the following categories in the RMP revision process (see Table 2-3):

1) Physical, Biological and Cultural/Heritage Resources
2) Resource Uses and Support
3) Special Designations

Management actions are proactive measures or limitations intended to guide BLM activities in the planning area. Three types of management actions are included in the alternatives. The first is *management actions common to all alternatives*, which will apply regardless of what alternative is selected. The second is *management common to action alternatives*, which will apply to alternatives B, C, and D regardless of which alternative is selected. The third is *management actions by alternative*, which represent the choice(s) considered across alternatives.

Allowable uses identify where land uses are allowed, restricted, or prohibited on all BLM-administered surface and Federal mineral estate in the planning area. Alternatives may include specific land use restrictions to meet goals and objectives and may exclude certain land uses to protect resource values. For example, alternatives considered for this RMP revision prohibit surface occupancy (i.e., no surface occupancy [NSO]) by oil and gas development within

occupied greater sage-grouse leks and associated buffers. Because the alternatives identify whether particular land uses are allowed, restricted, or prohibited, allowable uses often include a spatial component (e.g., map) to display the variances between alternatives.

The third type of management action, management actions by alternative, represents the range of choices considered across alternative. An example of this type of management actions is to restore riparian habitat to address issues of water quality and/or fish and wildlife habitat. In this example, the acreage or mileage of riparian habitat to restore may vary by alternative, whereas the action (restore riparian habitat) is retained for all alternatives.

Although anticipated to achieve desired outcomes, the components described above may not be achieved during the planning period due to limitations in funding or staffing, changing policies or priorities or new information. These factors would also affect the rate of RMP implementation (see Appendix X). It is important to note that the RMP is strategic in nature, and, while it provides an overarching vision for managing resources in the planning area, it also allows management flexibility in light of changing priorities, information, and circumstances. This management flexibility can be called adaptive management.

2.3.3 Bureau of Land Management Policy and Administrative Actions

The BLM has policy guidance already established under various instruction memoranda and information bulletins from both the Washington and Montana State Offices. Policies are generally issued and/or updated based on new science, research, and technology. For example, one policy is that "to reduce the risk of collisions, avoid the use of guy wires for turbine or MET tower supports. All existing guy wires should be marked with recommended bird deterrent devices (WO IM-2010-022)." While many of these policies are included as management actions where appropriate or included in supplementary information in some appendices, there are numerous policies that apply to the Billings Field Office and all cannot be described here in their entirety. For more information on BLM policies applicable to land use planning, refer to BLM Handbook H-1601-1, Land Use Planning Handbook (2005) and the information bulletins and instruction memorandums available on BLM websites for the Washington and Montana State Offices http://www.blm.gov/wo/st/en/prog/planning.html.

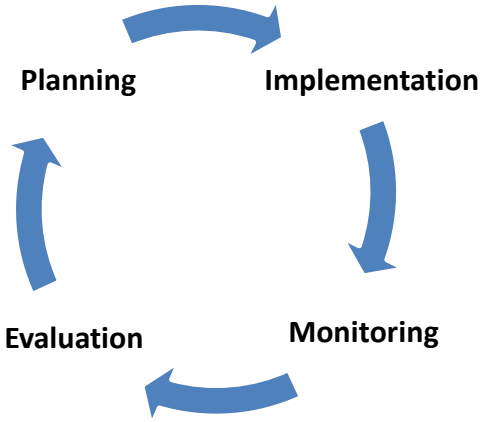
Administrative actions are the day-to-day activities required to serve the public and to provide optimum management of the Billings Field Office's resources. These actions are allowable by regulation and do not require authorization within an RMP, but may require site-specific analysis under NEPA. For example, in day-to-day management of the Billings Field Office, BLM is responsible for law enforcement activities that need not be authorized under the RMP. Additionally, BLM may authorize or restrict access in certain areas in emergency situations (with proper notification requirements) or coordinate with other agencies and organizations, such as Montana Fish, Wildlife, and Parks, for specific activities that may not require site-specific NEPA documentation efforts. These or other administrative actions would be conducted in the BiFO, sometimes in partnership with other landowners, agencies or organizations. The degree to which these actions are carried out depends upon BLM policies, available personnel, funding levels and further environmental analysis and decisions, as appropriate.

2.3.4 Adaptive Management

The Department of the Interior Office of Environmental Policy and Compliance issued ESM03-6, which provides initial guidance to all agencies on the implementation of adaptive management practices for NEPA compliance. The Interior Department Manual 516 DM 4.16 defines adaptive management as "a system of management practices based on clearly identified outcomes, monitoring to determine of management actions are meeting outcomes and, if not, facilitating management change that would best ensure that outcomes are met or re-evaluate the outcomes."

This Proposed RMP/EIS recommends an adaptive management strategy. This adaptive management process is flexible and generally involves four phases: planning, implementation, monitoring, and evaluation (see Figure 2-2).

Figure 2-2 Adaptive Management Strategy Phases



Adaptive management is a formal, systematic, and rigorous approach to learning from the results of management actions, accommodating change and improving management. It involves synthesizing existing knowledge, exploring alternative actions, and making explicit forecasts about their results. Management actions and monitoring programs are carefully designed to generate reliable feedback and clarify the reasons underlying results. Actions and objectives are then adjusted based on this feedback and improved understanding to continue to try to achieve the desired outcomes. In addition, decisions, actions and results are carefully documented and communicated to others so that knowledge gained through experience is passed on rather than lost when individuals move or leave the organization.

As the BLM obtains new information, it is able to evaluate monitoring data and other resource information to periodically refine and update desired outcomes (goals and objectives), management actions, and allowable uses. This allows continual refinement and improvement of management prescriptions and practices.

Land use plan level decisions would not be immediately adaptable. These include goals, objectives, special designations, and allocations. Plan amendments would be required to change

these decisions. Implementation or activity level decisions could be adapted as conditions are studied and monitored. Future activity level plans would follow NEPA procedures and involve the public. Some resource management plan-level decisions would not be immediately adaptable.

2.3.5 Best Management Practices

Best management practices for all resources may be found in Appendix B and Greater sage-grouse best management practices may be found in Appendix AB. Best management practices are management actions that have been developed by agency, industry, scientific, and/or working groups as methods for mitigating environmental impacts associated with certain kinds of activity.

Best management practices would be implemented at the discretion of the Billings Field Office on a project specific basis, depending on the specific characteristics of the project area and the types of disturbance being proposed. They may not be appropriate to implement in all cases. It has been assumed for impact analysis that best management practices would be implemented wherever appropriate.

Throughout the planning area, BLM-authorized activities associated with all resource and all resource use programs would be subject to impact mitigation/minimization guidelines and best management practices (BMPs) found in Appendices B and AB (note: refer to Appendix D – Fluid Minerals for operating standards specific to oil and gas leasing and developing).

The purpose of the BMPs is to (1) reserve for the BLM the right to modify the operations of surface disrupting and/or disruptive activities as part of the statutory requirements for environmental protection, and (2) inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-administered public lands. Operating standards are given as acceptable methods for mitigating anticipated effects and achieving the desired plan outcomes but are not prescribed as the only method for achieving the outcomes.

Mitigation of surface-disturbing or disruptive activities would be applied where needed to minimize impacts and could be applied consistent with the oil and gas stipulations outlined in the Fluid Minerals section of Chapter 2. Mitigation measures would be applied on a case-by-case basis during activity level planning if an evaluation of the project area indicates the presence of important wildlife species seasonal wildlife habitat or other resource concern. Exceptions may be granted by the authorized officer if an environmental review demonstrates that effects could be mitigated to an acceptable level, habitat for the species is not present in the area, or portions of the area can be occupied without affecting a particular species. Exceptions may also be granted where the short-term effects are mitigated by the long-term benefits (e.g., prescribed fire or forest health treatments).

The mitigation would be requirements, procedures, management practices or design features that the BLM, through issuance of the record of decision would adopt as operational requirements. The BLM may add additional site-specific restrictions as deemed necessary by

further environmental analysis and as developed through consultation with other federal, state, and local regulatory and resource agencies.

Mitigation Measures and Conservation Actions for Surface Disturbing and Disruptive Activities

Mitigation measures and conservation actions are Best Management Practices (BMPs), operating procedures, or design features that have been developed to avoid, minimize, rectify, reduce, or compensate for potentially significant adverse environmental impacts associated with surface disturbing or disruptive activities.

For the purposes of applying mitigation measures, surface disturbing and disruptive activities are defined as follows:

Surface-Disturbing Activities: The physical disturbance or removal of land surface and vegetation. Some examples of surface-disturbing activities include, but are not limited to, construction of roads, well pads, pipelines, power lines, reservoirs, facilities, recreation sites, and mining. Vegetation renovation treatments that involve soil penetration and/or substantial mechanical damage to plants (plowing, chiseling, chopping, etc.) are also surface-disturbing activities.

Disruptive Activities: Those uses and activities that are likely to alter the behavior of, displace, or cause excessive stress to wildlife populations occurring at a specific location and/or time. In this context, disruptive activity(ies) refers to those actions that alter behavior or cause the displacement of wildlife such that reproductive success is negatively affected, or the physiological ability to cope with environmental stress is compromised. This term does not apply to the physical disturbance of the land surface, vegetation, or features. Examples of disruptive activities may include fence construction, noise, vehicle traffic, or other human presence regardless of the activity. The term is used in conjunction with protecting wildlife during crucial life stages (for example, breeding, nesting, birthing, etc.), although it could apply to any resource value. This definition is not intended to prohibit all activities or authorized uses.

For example, emergency activities (fire suppression, search and rescue, etc.), or rangeland monitoring, routine maintenance associated with an approved authorization, dispersed recreational activities (hunting, hiking, etc.), and livestock grazing are not considered surface-disturbing or disruptive activities.

Mitigation measures for all resources are included in Appendix B and Appendix AB includes the Greater Sage-Grouse Mitigation Measures and Conservation Actions. The BLM may add additional mitigation measures as deemed necessary by further environmental analysis and as developed through consultation with other federal, state, and local regulatory and resource agencies.

The BLM will apply appropriate mitigation measures and conservation actions to BLM authorized activities to avoid, minimize, rectify, reduce, or compensate for impacts if an

evaluation of the project area indicates the presence of important wildlife species, seasonal wildlife habitat, or other resource concern. The sequence of mitigation action will be:

Step 1. Avoid - Adverse impacts to resources are to be avoided and no action shall be permitted if there is a practicable alternative with less adverse impact.

Step 2. Minimize - If impacts to resources cannot be avoided, appropriate and practicable steps to minimize adverse impacts must be taken.

Step 3. Compensate - Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain. The amount and quality of compensatory mitigation may not substitute for avoiding and minimizing impacts.

Even after avoiding and minimizing impacts, projects that will cause adverse impacts to resources typically require some type of compensatory mitigation. Compensatory mitigation refers to the restoration, establishment, enhancement, or in certain circumstances preservation of resources for the purpose of offsetting unavoidable adverse impacts. The BLM will determine the appropriate form and amount of compensatory mitigation required. Methods of compensatory mitigation include restoration, establishment, enhancement and preservation.

- Restoration: Re-establishment or rehabilitation of a resource with the goal of returning natural or historic functions and characteristics to a currently degraded area. Restoration may result in a gain in function or acres, or both.

- Establishment (Creation): The development of a resource where that resource did not previously exist through manipulation of the physical, chemical and/or biological characteristics of the site. Successful establishment results in a net gain in acres and function.

- Enhancement: Activities conducted within existing resource that heighten, intensify, or improve one or more functions. Enhancement is often undertaken for a specific purpose such as to improve water quality, flood water retention or wildlife habitat. Enhancement results in a gain in function, but does not result in a net gain in acres.

- Conservation: The permanent protection of ecologically important resources through the implementation of appropriate legal and physical mechanisms (i.e. conservation easements, title transfers). Preservation may include protection of areas adjacent to resource location as necessary to ensure protection or enhancement of the ecosystem. Preservation does not result in a net gain of acres and may only be used in certain circumstances, including when the resources to be preserved contribute significantly to ecological sustainability.

There are times when mitigating project impacts through onsite mitigation alone, may not be possible or sufficient to adequately mitigate impacts and achieve resource objectives. In these cases, it may be appropriate to consider offsite mitigation as a feature of one or more of the

alternatives in the impact analysis. Offsite mitigation is generally appropriate when the authorized officer determines that impacts cannot be mitigated to an acceptable level onsite and it is expected that the land use authorization as submitted would not be consistent with the BLM's resource objectives. BLM may expressly condition its approval of an action on the applicant's commitment to take actions, and the BLM may, if necessary, seek appropriate enforcement action to ensure the terms of the contract are met (BLM Instruction Memorandum No. 2012-043).

Because of site-specific circumstances, some mitigation measures and conservation actions may not apply to some activities (e.g., a resource or conflict is not present on a given site) and/or may require slight variations from what is described in this appendix (AB). Proposed variations will be addressed as site specific mitigation applied in the permitting process. All variations in mitigation measures and conservation actions will require appropriate analysis and disclosure as part of activity authorization. It is anticipated that variations in the mitigation measures and conservation actions will be approved in very limited circumstances and only in coordination with state wildlife management agencies. Mitigation measures and conservation actions selected for implementation will be identified in the Record of Decision (ROD) or Decision Record (DR) for those activities. The proponent must implement those identified mitigations because they are commitments made as part of the BLM decision. Because these decisions create a clear obligation for the BLM to ensure any proposed mitigation adopted in the environmental review process is performed, there is assurance that mitigation will lead to a reduction of environmental impacts in the implementation stage and include binding mechanisms for enforcement (CEQ Memorandum for Heads of Federal Departments and Agencies 2011). The determination of adequate application of the mitigation measures and conservation actions for specific projects will remain with the BLM's Authorized Officer.

2.3.6 Land Health Standards

Resources and Resource use programs would meet or move toward meeting the following standards to the extent practicable:

1) Uplands are in proper functioning condition

2) Riparian areas and wetlands are in proper functioning condition

3) Water quality meets federal and Montana state standards

4) Air quality meets Montana state standards

5) Habitats are provided for healthy, productive, and diverse native plant and animal populations and communities.

6) Habitats are improved or maintained for special status species (federally threatened, endangered, candidate or Montana species of special concern)

These standards, originally described as rangeland health standards (USDI BLM 1997), would be applied to BLM authorized activities as "Land Health Standards." Detailed descriptions of the characteristics associated with these standards can be found in Appendix I.

2.3.6.1 Activity Plans

Program specific "activity plans," such as habitat management plans or watershed restoration strategies, have been written over the years to apply a more focused approach to achieving land use planning goals. Activity plans provide direction for more site-specific actions. NEPA analysis is required for site-specific implementation actions. Program specific "activity plans" would be tiered to this document and are part of the implementation of this RMP/EIS (Appendix X).

2.3.6.2 Monitoring

The BLM planning regulations (43 Code of Federal Regulations 1610.4-9) call for the monitoring of resource management plans on a continual basis with formal evaluation done at periodic intervals. The Billings and Pompeys Pillar National Monument RMP/EIS would be monitored on a continual basis. Plan evaluations would occur on 5 year intervals. Management actions arising from activity plan decisions would be evaluated to ensure consistency with the Approved RMP objectives (Appendix X).

2.4 Alternatives Considered But Not Analyzed in Detail

The following alternative(s) were considered, but not carried forward for detailed analysis because (1) they would not fulfill requirements of the Federal Land Policy and Management Act (FLPMA) or other existing laws or regulations, (2) they did not meet the purpose and need, (3) they were already part of an existing plan, policy, or administrative function, or (4) they did not fall within the limits of the planning criteria. The FLPMA requires the BLM to manage the public lands and resources in accordance with the principles of multiple use and sustained yield, including recognizing the Nation's needs for domestic sources of minerals, food, timber, and fiber. Moreover, the BLM is required by law to recognize existing valid rights on public lands and manage public lands in accordance with existing laws (see Appendix A), including but not limited to, the General Mining Law of 1872 and the Mining and Minerals Policy Act of 1970.

2.4.1 Eliminate Livestock Grazing from BLM public lands

An alternative that proposes to make the entire Billings Field Office unavailable for grazing would not meet the purpose and need of this RMP/EIS. The NEPA requires that agencies study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources. No issues or conflicts have been identified during this land use planning effort that requires the complete elimination of grazing within the planning area for their resolution. Where appropriate, removal of livestock and adjustments to livestock use has been incorporated in this

planning effort. Because the BLM has considerable discretion through its grazing regulations to determine and adjust stocking levels, seasons-of-use, and grazing management activities, and to allocate forage to uses of the public lands in an RMP, the analysis of an alternative to entirely eliminate grazing is not needed. Additional consideration for not fully analyzing a No Grazing Alternative is described below.

A majority of the Billings RMP planning area is located in the northern portion of the Great Plains Ecoregion (U.S. Environmental Protection Agency 2010) and the rangelands in the planning area are classified as mixed-grass prairie. The rangelands of the Great Plains have a long evolutionary history of grazing and grazing is accepted by grassland ecologists as a keystone process of the grassland ecosystem (Fuhlendorf and Engle 2001, Milchunas et al. 1988, Knapp et al. 1999). There is also agreement among many scientists and natural resource managers that some level of grazing disturbance is necessary to assure the ecological integrity of the mixed-grass prairie ecosystem (Grasslands National Park Management Plan 2001).

From 1956 through 1972, the BLM conducted a classification of public lands to estimate the amount of available forage within these planning areas. These are typically referred to as the "Missouri River Basin Surveys". From this effort, multiple sub-basin reports were generated, which provided the carrying capacities by Animal Unit Months (AUMs) for all BLM lands at the time of survey.

The measurement of the available forage for livestock grazing was conducted by trained professionals and involved intensive vegetation sampling (clipping, weighing, and ocular estimation). The BLM, in cooperation with grazing advisory boards, used the information to make adjustments to the AUMs allocated to a grazing permit. This cooperative effort resulted in implementation of appropriate changes to grazing permits in the planning areas. These changes were implemented in a timely manner and completed prior to 1975.

These historical grazing allocations were included in the 1984 RMP and are carried forward in the current analysis. Validation of the historical forage allocations occurs on a periodic basis which coincides with the renewal of each ten year grazing permit. This periodic review has resulted in the suspension of 7,746 AUMs, from a total preference of 62,619 AUMs (12.3% reduction). Since 2009, this periodic review has also resulted in the site specific environmental analysis of a "No Grazing" alternative on 106 allotments.

Resource conditions on the BLM-administered public lands in the planning area, including range vegetation, watershed, and wildlife habitat, do not warrant prohibition of livestock grazing throughout the planning area. Of the 370 allotments managed by the Billings Field Office, 83.5% of the allotments that have been assessed (309,658 acres) meet the Standards for Rangeland Health (see Table 3-16) and 9.1% of the allotments assessed (41,153 acres) are making significant progress towards meeting the Standards for Rangeland Health. Only 11 allotments (3,835 acres total) are not meeting Standards for Rangeland Health or are not making significant progress towards meeting these Standards. Of the 11 allotments that are not currently meeting the Standards (with livestock having been determined as the causal factor for nine of the allotments), changes to the grazing systems have already been implemented on eight allotments. Of the remaining three allotments, substandard conditions are a result of factors

other than livestock grazing on two and the lease on the third allotment has expired and the permittee has yet to apply for renewal. Further reduction or elimination of livestock grazing could become necessary in specific situations where livestock grazing causes or contributes to conflicts with the protection and/or management of other resource values or uses. Such determinations would be made during site-specific activity planning and associated environmental analysis (106 site-specific environmental analyses completed to date). These determinations would be based on several factors, including monitoring studies, current range management science, input from livestock operators and the interested public, and the ability of particular allotments to meet the Standards for Rangeland Health. Acres not available for permitted livestock use for the life of the plan range from 37,408 acres (Alt A), 38,373 acres (Alt B), 28,622 acres (Alt C), to 28,387 acres (Alt D).

In accordance with BLM's Land Use Planning Handbook and BLM IM No. 2012-169, BLM considered a range of alternatives with respect to both areas that are available or unavailable for livestock grazing and the amount of forage allocated to livestock on an area-wide basis. The analysis considers a range of alternatives necessary to address unresolved conflicts among available resources and includes a meaningful reduction in livestock grazing across the alternatives, both through reduction in areas available to livestock grazing and forage allocation.

The BLM developed a range of alternatives that sharply defines the issues and provides a clear basis for choice among options by the decision-maker. The BLM analyzed closing a range of 33,334 to 135,645 acres to sheep and goat grazing and closing a range of 28,387 to 38,373 acres to all livestock grazing, where the BLM identified unresolved conflicts concerning various uses of available resources such as between livestock grazing and recreation, ACECs, Wilderness Study Areas, and Pryor Mountain Wild Horse Range.

Suitable measures, which could include reduction or elimination of livestock grazing, are provided for in this RMP/EIS, which could become necessary in specific situations where livestock grazing causes or contributes to conflicts with the protection and/or management of other resource values or uses. Such determinations would be (and have been) made during site-specific activity planning or permit renewal and their associated environmental review (106 completed to date, whereby a 'no grazing' alternative has been analyzed). These determinations would be based on several factors, including monitoring studies, review of current range management science, input from livestock operators and interested parties, and ability to meet the Standards for Rangeland Health and Guidelines for Livestock Grazing Management.

Livestock grazing is and has been an important use of the public lands in the planning area for many years, and is a continuing government program. The CEQ guidelines for compliance with NEPA require that agencies analyze the "No Action Alternative" in all EISs (40 CFR 1502.14(d)). For the purposes of this NEPA analysis, the "no action alternative" is to continue the status quo, which includes livestock grazing. For this reason and those stated above, a no grazing alternative for the entire planning area was dismissed from detailed consideration in this RMP/EIS.

The scattered pattern of land ownership in the planning area would require extensive fencing to eliminate livestock use from public lands. In some cases, maintenance of fences along public property boundaries would be very difficult due to steep terrain features. Additionally, the extensive fencing would create many new barriers for wildlife movements increasing habitat fragmentation.

Finally, the alternatives analyzed in detail do include various considerations for eliminating or maximizing individual resource values or uses in specific areas where conflicts exist. For these reasons, the BiFO dismissed a no grazing alternative for the entire planning area from further consideration in this RMP/EIS.

2.4.2 OHV Rock Crawl Area Proposed in Petroglyph Canyon

An OHV Rock Crawl Area in Petroglyph Canyon ACEC was proposed during the 2009 travel management meetings. This proposal is not being analyzed in the Billings and Pompeys Pillar National Monument RMP/EIS under any alternative for the following reasons:

1) It would not be compatible with the current ACEC designation. The 1999 ACEC Amendment Record of Decision states that the Petroglyph Canyon area (240 acres) would be closed to OHV use.

2) The rock art is fragile and vibrations from vehicles can cause rock spalling (causing irreversible damage the rock art). The dust caused by OHVs (or other vehicles) can build up on the petroglyphs and cause erosion damage as dust gets incorporated into the petroglyph and causes the rock art to fade.

3) The resource damage related to vehicle use in a sensitive area such as Petroglyph Canyon includes long-lasting vehicle scars upon the land, loss of soils and vegetation, gullying, deflation of cultural deposits, deplacement and damage to artifacts and geologic features, and others.

4) In addition, motorized public access directly to a cultural site (including rock art sites such as this) leads to a higher potential for vandalism and destruction of the cultural resource. In addition, the staging area required for the rock crawl area (driving off the existing road into the canyon) would create visual scars, damage to the fragile soil resources and could lead to a proliferation of user-created routes in the area.

2.4.3 Sykes Ridge ACEC Proposal

During the 2008 public scoping for the Billings and Pompeys Pillar National Monument RMP/EIS, a proposal was received for an area of critical environmental concern (ACEC) on Sykes Ridge for special status plants.

As proposed the Sykes Ridge ACEC area was determined to be located entirely within the existing East Pryor ACEC and within the Pryor Mountain Wild Horse Range. In addition,

portions of the proposed Sykes Ridge ACEC were determined to be located within a WSA. After careful review and consideration, it was determined no new special management was needed to protect special status plants on Sykes Ridge. (See Appendix E for rationale and evaluation of this nomination).

2.4.4 Conservation Groups Alternative

During the range-wide scoping effort for sage-grouse, several conservation organizations submitted scoping comments and proposed management actions and alternatives for sage-grouse conservation (referred to here as the Conservation Groups Alternative). In summary, the primary intent of these proposed alternatives and management actions was to: (1) add additional measures (beyond those conservation measures identified in the National Technical Team (NTT) report (disseminated by BLM WO-IM-2012-044) in order to maintain and increase sage-grouse abundance and, (2) designate two additional habitat types – Greater Sage-Grouse Areas of Critical Environmental Concern (ACECs) and "restoration" habitat areas.

These proposed actions and alternatives submitted by these organizations were determined to be substantially similar to those actions and habitat areas considered within the range of alternatives in this DRMP/EIS. As described in the Wildlife and Special Status Species section in Chapter 2, this DRMP/EIS delineates three types of sage-grouse habitat areas as part of the planning process (refer to maps/sections here), including: Sage-Grouse Habitat - Protection Priority Areas (PPAs), Sage-Grouse Habitat - Restoration Areas (RAs), and Sage-Grouse Habitat - General Sage-Grouse Areas. Varying degrees of management is considered and analyzed as part of the range of alternatives within each of these habitat delineations in this DRMP/EIS in order to achieve the goals or objectives for each sage-grouse habitat area, as well as address the conservation measures and management practices to conserve Greater sage-grouse consistent with the NTT report. Additionally, this DRMP/EIS includes Mitigation Measures and Conservation Actions for Greater Sage-Grouse (Appendix AB). The appendix identifies best practices, design features and proactive management activities to conserve greater sage-grouse that would be applied during project specific activities through subsequent environmental review and analysis.

Specific to the organization's proposed alternative to designate sage-grouse ACECs and 'restoration' areas, this DRMP/EIS does include, within the range of alternatives for detailed study, a Greater sage-grouse ACEC (Alternative B) and restoration areas for sage-grouse. Table 2-1 provides a summary of the range of acreages for priority, general, and restoration habitat for greater sage-grouse and Table 2-6.3 provides a summary of the range of alternatives for sage-grouse (e.g., allowable uses, constraints, etc.). This range of alternatives is adequate to compare impacts to sage-grouse from different conservation measures as well as the size of habitat classifications.

In summary, the additional alternatives and actions proposed through the Conservation Groups Alternative were considered but eliminated from detailed study from this RMP revision because the range of alternatives adequately addresses conservation measures for sage-grouse. For example, the alternatives range from open to fluid mineral leasing and right-of-way

development, to a no-lease stipulation for new oil and gas development and exclusion areas for rights-of-way

NEPA Note: The following court cases discuss alternatives eliminated from detailed study – provided merely as background information.

Sierra Club North Star Chapter v. Ray Lahood, Secretary of Transportation:

> Overall, while Sierra Club "points to some alternative that might have been considered or discussed more fully, the 'detailed statement of alternatives cannot be found wanting simply because the agency failed to include every alternative device and though conceivable.'"

Citizens for Smart Growth v. Secretary of the Department of Transportation:

> When alternatives are rejected from consideration in an EIS, there is no duty to perform in-depth analyses of these alternatives. 40 C.F.R. 1502.14(a) (stating that agencies shall "[r]igorously explore and objectively evaluate all reasonable alternatives," but when alternatives have been rejected from consideration, agencies need only "briefly discuss the reasons for their having been eliminated" (emphasis added)). Because Appellees' choice to exclude the alternatives that it did was appropriate, Appellees had no duty to conduct an in-depth analysis of those rejected alternatives in the FEIS.

2.5 Summary of Alternatives Considered in Detail

This section summarizes the four alternatives (A through D) considered in the EIS in detail. A description of the alternatives considered requires (1) a narrative to describe *what* decisions each alternative will establish and (2) maps to show *where* each decision will occur. With 167 maps and multiple special designations, resource uses, and management actions for more than 30 individual resources and resource uses, an exhaustive narrative description of each alternative would result in a lengthy and potentially confusing chapter. To reduce the length and avoid confusion, only select meaningful differences (those with the most potential to affect resources) among alternatives are summarized in this section.

Combined with the appendices and maps, Table 2-1 and Table 2-2 highlight the meaningful differences among the alternatives relative to what they establish and where they occur. Following these tables, a narrative description of each alternative is provided under the following headings

- Overview of the Alternative
- Physical, Biological and Cultural/Heritage Resources
- Resource Uses and Support
- Special Designations

Other than *Overview of the Alternative*, the above headings reflect categories through which program specific guidance for land use planning decisions must be applied (BLM 2005 – LUP Handbook). Table 2-1 summarizes meaningful differences (typically relative to acres) among alternatives for the first two categories: Physical, Biological and Cultural/Heritage Resources and Resource Uses and Support. Table 2-2 summarizes meaningful differences (typically relative to designation and acres) among alternatives for Special Designations. Viewed in conjunction with the narrative for each alternative (Table 2-3), Table 2-1 and Table 2-2 highlight *what* meaningful decisions each alternative will establish. A complete description of all decisions proposed for each alternative, as well as a description of goals and objectives are included in Table 2-3.

Decisions made by this RMP revision are anticipated to be subsequently implemented. Restrictions on resource uses (e.g., closed to leasing) apply to the life of the RMP, unless changed through an RMP amendment and public involvement. The timing and degree of implementation will depend on available budget, staffing, and agency priorities (see Appendix X). Actions taken or authorized by the BLM during RMP implementation would comply with standard practices and best management practices (BMPs; Appendix B). Therefore, these practices and guidelines are considered part of each alternative.

Table 2-1 Comparative Summary of Proposed Land Use Decisions for Physical, Biological, and Cultural/Heritage Resources and Resource Uses by Alternative

Topic	Acreage Type	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Physical, Biological, and Cultural/Heritage Resources					
Soils (acres of surface disturbance restrictions)	BLM Administered Surface	33,908	47,795	16,782	47,795
Forests and Woodlands (# of available acres for potential treatment, based on slope restrictions)	BLM Administered Surface	21,807 (68% of forested lands)	19,241 (60% of forested lands)	25,335 (79% of forested lands)	19,241 (60% of forested lands)
Rangelands (acres crested wheatgrass treated over life of the plan)	BLM Administered Surface	160	22,414	7,500	12,000
Riparian and Floodplains (acres surface disturbance restricted)	BLM Administered Surface	10,114	24,373	6,666	9,087
Riparian (miles of high priority recovery area)	BLM Administered Surface	0	189	13	51
Invasive Species and Noxious Weed Treated (acres treated per year)	BLM Administered Surface and Private Surface	366 to 5,548	200 to 800	1,500 to 3,000	400 to 2,000

Table 2-1 Comparative Summary of Proposed Land Use Decisions for Physical, Biological, and Cultural/Heritage Resources and Resource Uses by Alternative

Topic	Acreage Type	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Sage-Grouse General Habitat Areas	BLM Administered Surface	0	78,575 acres		
	BLM Administered Federal Mineral Estate	0	116,452 acres		
Sage-Grouse Protection Priority Areas	BLM Administered Surface	0	0	154,140 acres	
	BLM Administered Federal Mineral Estate	0	191,543 acres		
Sage-Grouse Restoration Areas	BLM Administered Surface	0	45,555 acres		
	BLM Administered Federal Mineral Estate	0	63,437 acres		
Fisheries (acres surface disturbance restrictions)	BLM Administered Surface	0	15,693 *	806 **	2,068 **
Wild Horses and Burros: Herd Management Area (acres)	BLM Administered Surface	24,595	23,204	28,622	27,094
	Total Acres All Surface Ownerships (BLM, USFS, NPS and private) within the Herd Area	37,494	31,153	44,855	39,944
Cultural Sites (acres of restrictions on surface development on or near)	BLM Administered Surface	4,847	11,384	5,407	14,988
Visual Resource Management Class I (acres)	BLM Administered Surface	VRI Class A 29,843	29,823	26,040	28,861
Visual Resource Management Class II (acres)	BLM Administered Surface	VRI Class B 12,427	15,688	20,498	13,648

Table 2-1 Comparative Summary of Proposed Land Use Decisions for Physical, Biological, and Cultural/Heritage Resources and Resource Uses by Alternative

Topic	Acreage Type	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Visual Resource Management Class III (acres)	BLM Administered Surface	VRI Class B/C 391,068	388,643	387,616	391,645
Visual Resource Management Class IV (acres)	BLM Administered Surface	VRI Class C 816	0	0	0
Wildfire to meet resource objectives (# acres in a 10year period)	BLM Administered Surface	0	52,548	0	62,937
Fuels Treatment (prescribed fire and non-prescribed fire) (# acres in a 10-yr period)	BLM Administered Surface	6,280	21,700		
Lands with Wilderness Characteristics (# tracts /acres)	BLM Administered Surface	1,925 acres	12 tracts 27,292 acres	4 tracts 3,379 acres	9 tracts 13,653 acres
Resource Uses and Support					
Fluid Minerals (acres available NSO)	BLM Administered Federal Mineral Estate	32,595	28,110	64,135	263,185
Fluid Minerals (acres available TL)	BLM Administered Federal Mineral Estate	308,116	249,460	316,602	315,317
Fluid Minerals (acres available CSU)	BLM Administered Federal Mineral Estate	28,337	76,556	102,682	21,436
Fluid Minerals (acres available standard lease terms)	BLM Administered Federal Mineral Estate	264,534	67,726	126,732	6,158
Fluid Minerals (acres unavailable non-discretionary)	BLM Administered Federal Mineral Estate	28,682	28,682	28,682	28,682
Fluid Minerals (acres unavailable discretionary)	BLM Administered Federal Mineral Estate	11,048	274,031	37,209	44,233
Coal Leasing (acres closed)	BLM Administered Federal Mineral Estate	26,131	290,048	264,450	280,971

Table 2-1 Comparative Summary of Proposed Land Use Decisions for Physical, Biological, and Cultural/Heritage Resources and Resource Uses by Alternative

Topic	Acreage Type	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Locatable Minerals (acres closed and recommend for withdrawal)	BLM Administered Federal Mineral Estate	39,700 (1,855 currently withdrawn)	270,977	36,955	54,761
Mineral Materials (acres closed)	BLM Administered Federal Mineral Estate	44,583	343,745	251,927	272,122
Forest and Woodlands (average # acres for sale of forest products)	BLM Administered Surface	42 acres per year	67 acres per year	112 acres per year	89 acres per year
Land Tenure: Disposal – Category III (acres available)	BLM Administered Surface	7,529 acres (with 2,088 acres identified for further study)	50	4,223	170
Land Tenure: Retention – Category I (acres)	BLM Administered Surface	26,616 acres (no Category I or II)	68,300	108,184	80,060
Land Tenure: Retention – Category II (acres)	BLM Administered Surface		365,804	321,747	353,924
ROW Exclusion Areas (acres)	BLM Administered Surface	44,014	211,384	39,491	48,258
ROW Avoidance Areas (acres)	BLM Administered Surface	24,203	185,607	355,601	349,358
ROW Corridors (# corridors/acres)	BLM Administered Surface	1 / 1,579 acres	1 / 1,579 acres	2 / 13,832 acres	2 / 4,511 acres
Renewable Energy (# acres open and percent open)	BLM Administered Surface	361,514 acres (83% open) Wind Potential: H: 50,135 M: 132,040 L: 178,916 (WY – 423 acres)	0 acres Wind Potential: H: 0 M: 0 L: 0	21,349 acres (5% open) Wind Potential: H: 757 M: 10,750 L: 9,842	20,937 acres (5% open) Wind Potential: H: 751 M: 10,595 L: 9,591
Renewable Energy (# acres closed and percent closed)	BLM Administered Surface	47,496 acres (11% closed) Wind Potential: H: 12,372 M: 6,350 L: 26,271 (WY – 2,503 acres)	345,491 acres (80% closed) Wind Potential: H: 53,537 M: 111,742 L: 179,530 (WY – 4,242 acres)	82,019 acres (19% closed) Wind Potential: H: 19,960 M: 15,358 L: 46,421 (WY – 3,822 acres)	78,088 acres (18 % closed) Wind Potential: H: 17,392 M: 12,978 L: 47,411 (WY – 3,822 acres)

Table 2-1 Comparative Summary of Proposed Land Use Decisions for Physical, Biological, and Cultural/Heritage Resources and Resource Uses by Alternative

Topic	Acreage Type	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Renewable Energy (# acres avoidance and percent avoidance)	BLM Administered Surface	25,141 acres (6% avoidance) Wind Potential: H:1,040 M: 7,677 L: 15,055 (WY – 1,372 acres)	85,461 acres (20% avoidance) Wind Potential: H: 10,690 M: 34,202 L: 40,513 (WY – 56 acres)	326,722 acres (75% avoidance) Wind Potential: H: 42,830 M: 119,570 L: 163,846 (WY – 476 acres)	331,088 acres (76% avoidance) Wind Potential: H: 45,406 M: 122,101 L: 163,105 (WY – 476 acres)
Livestock Grazing (total acres available)	BLM Administered Surface	434,154 acres			
Livestock Grazing (total acres permitted)	BLM Administered Surface	387,057	386,092	386,822	387,057
Isolated parcels not included within grazing allotments	BLM Administered Surface	9,522 acres			
Livestock Grazing (total acres closed to permitted livestock use for the life of the plan)	BLM Administered Surface	37,408	38,373	28,622	28,387
Livestock Grazing (total acres available for prescriptive use of livestock grazing)	BLM Administered Surface	0	0	9,021	9,021
SRMAs (# SRMAs/acres)	BLM Administered Surface	2 SRMAs 1,171 acres	6 SRMAs 90,783 acres	11 SRMAs 147,181 acres	9 SRMAs 110,862 acres
Four Dances Natural Area ACEC SRMA	BLM Administered Surface	784 acres	784 acres	784 acres	784 acres
Sundance Lodge Recreation Area SRMA	BLM Administered Surface	387 acres	387 acres	387 acres	387 acres
Acton SRMA	BLM Administered Surface	0	3,697 acres	3,697 acres	3,697 acres
Asparagus Point SRMA	BLM Administered Surface	0	0	158 acres	158 acres
Bundy Island SRMA	BLM Administered Surface	0	98 acres	0	0
Horsethief TMA SRMA	BLM Administered Surface	0	0	12,261 acres	12,261 acres

Table 2-1 Comparative Summary of Proposed Land Use Decisions for Physical, Biological, and Cultural/Heritage Resources and Resource Uses by Alternative

Topic	Acreage Type	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Mill Creek/Bundy TMA SRMA	BLM Administered Surface	0	0	34,239 acres	0
Pryor Mountain TMA SRMA	BLM Administered Surface	0	81,277 acres	81,277 acres	81,277 acres
17-Mile SRMA	BLM Administered Surface	0	0	2,080 acres	0
Shepherd Ah-Nei SRMA	BLM Administered Surface	0	4,680 acres	4,680 acres	4,680 acres
South Hills TMA SRMA	BLM Administered Surface	0	0	1,357 acres	1,357 acres
Yellowstone River Corridor SRMA	BLM Administered Surface	0	0	6,311 acres	6,311 acres
ERMAs (# ERMAs/acres)	BLM Administered Surface	7 ERMAs 105,460 acres	5 ERMAs 7,668 acres	0 ERMAs	2 ERMAs 36,319 acres
Shepherd Ah-Nei ERMA	BLM Administered Surface	4,680 acres	0	0	0
Acton Recreation Area ERMA	BLM Administered Surface	3,697 acres	0	0	0
South Hills TMA ERMA	BLM Administered Surface	1,357 acres	1,357 acres	0	0
Pryor Mountain TMA ERMA	BLM Administered Surface	81,227 acres	0	0	0
Horsethief TMA ERMA	BLM Administered Surface	12,261 acres	12,261 acres	0	0
17 Mile ERMA	BLM Administered Surface	2,080 acres	2,080 acres	0	2,080 acres
Asparagus Point ERMA	BLM Administered Surface	158 acres	158 acres	0	0
Yellowstone River Corridor ERMA	BLM Administered Surface	0	6,213 acres	0	0

Table 2-1 Comparative Summary of Proposed Land Use Decisions for Physical, Biological, and Cultural/Heritage Resources and Resource Uses by Alternative

Topic	Acreage Type	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Mill Creek Area ERMA	BLM Administered Surface	0	0	0	34,239 acres
Non-Designated areas (public lands not identified as SRMAs or ERMAs)	BLM Administered Surface	All lands not designated as SRMAs will be managed as ERMAs (327,518 acres)	327,421 acres	288,495 acres	322,418 acres
Acres Open to Target Shooting	BLM Administered Surface	422,185	400,045	410,105	402,568
Acres Closed to Target Shooting	BLM Administered Surface	11,348	34,109	24,049	31,586
Miles Closed to Motorized Vehicle Use in 11 TMAs	BLM Administered Surface	No established TMAs	391.5 miles	5.6 miles	59.9 miles
Miles Open to Motorized Vehicle Use in 11 TMAs	BLM Administered Surface	No established TMAs Travel limited to existing roads and trails: 844.1 miles	348.1 miles	831.1 miles	616.7 miles
Special Designations					
ACECs	BLM Administered Surface	9 ACECs 37,896 acres	12 ACECs 181,175 acres	11 ACECs 67,079 acres	11 ACECs 38,786 acres
Wilderness Study Areas	BLM Administered Surface	4 WSAs 28,631 acres			
Wild and Scenic River (acres surface disturbance restrictions)	BLM Administered Surface	0	5,454	2,840	5,454
National Historic Trails (acres restrictions on surface development)	BLM Administered Surface	0	9,247	9,247	9,247

Notes:

ACEC	Area of Critical Environmental Concern	BLM	Bureau of Land Management
CSU	Controlled Surface Use	ERMA	Extensive Recreation Management Area
NHT	National Historic Trail	NSO	No Surface Occupancy
ROW	Right-of-Way	SRMA	Special Recreation Management Area
TL	Timing Limitation	TMA	Travel Management Area
VRI	Visual Resource Inventory	VRM	Visual Resource Management
WSA	Wilderness Study Area	WSR	Wild and Scenic River
YCT	Yellowstone Cutthroat Trout		

* Blue Ribbon Streams, Red Ribbon Streams, YCT Conservation Population, YCT Suitable Habitat

** Blue Ribbon Streams, YCT Conservation Population

Table 2-2 Comparative Summary of Proposed Special Designations by Alternative

Name	Emphasis	Acreage Type	Alternative A (No Action)		Alternative B		Alternative C		Alternative D (Preferred Alternative)	
			Existing Designation	Acreage	Proposed Designation	Acreage	Proposed Designation	Acreage	Proposed Designation	Acreage
Pompeys Pillar National Monument and ACEC	Cultural and Historic Values	BLM–AS	ACEC	432	ACEC	432	ACEC	432	ACEC	432
ACECs										
Bridger Fossil Area ACEC	Paleontological Values	BLM–AS	ACEC	577	ACEC	577	ACEC	577	ACEC	577
Castle Butte ACEC	Cultural Values	BLM–AS	ACEC	184	ACEC	184	ACEC	184	ACEC	184
East Pryor ACEC	Wild Horses & Wildlife Habitat, Historic, Cultural, Paleontological, and Special Status Plants and Animals	BLM–AS	ACEC	29,550	ACEC	8,301	ACEC	32,767	ACEC	11,122
Four Dances Natural Area ACEC	Safety Hazards, Cultural, Historic, and Scenic Values, Peregrine Falcon Nesting	BLM–AS	ACEC	784	ACEC	784	ACEC	784	ACEC	784
Grove Creek ACEC	Cultural Values and Special Status Plants	BLM–AS	No SD	0	ACEC	8,251	ACEC	9,445	ACEC	8,251
Meeteetse Spires ACEC	Scenic Values and Rare Plant Protection	BLM–AS	ACEC	965	ACEC	1,523	ACEC	2,173	ACEC	1,523
Petroglyph Canyon ACEC	Cultural Values	BLM–AS	ACEC	240	AECE	240	ACEC	240	ACEC	240
Pryor Foothills RNA ACEC	Special Status Plants, Rare Plant Communities, Cultural Values	BLM–AS	No SD	0	ACEC	958	ACEC	7,401	ACEC	2,606
Stark Site ACEC	Cultural Values	BLM–AS	ACEC	799	ACEC	799	ACEC	799	ACEC	799
Weatherman Draw ACEC	Cultural Values	BLM–AS	ACEC	4,365	ACEC	4,986	ACEC	12,277	ACEC	12,277
Greater Sage-Grouse Habitat ACEC	Protect Greater Sage-Grouse priority habitat	BLM-AS	No SD	0	ACEC	154,140	No SD	0	No SD	0
Horse Range										
Pryor Mountain Wild Horse Range	Wild Horses	BLM–AS	HR	24,595	HR	23,204	HR	28,622	HR	27,094
Wilderness Study Areas										
Big Horn Tack-On WSA	Wilderness values	BLM–AS	WSA / 2,689							
Burnt Timber Canyon WSA	Wilderness values	BLM–AS	WSA / 3,516							
Pryor Mountain WSA	Wilderness values	BLM–AS	WSA / 15,590							

Table 2-2 Comparative Summary of Proposed Special Designations by Alternative

Name	Emphasis	Acreage Type	Alternative A (No Action)		Alternative B		Alternative C		Alternative D (Preferred Alternative)	
			Existing Designation	Acreage	Proposed Designation	Acreage	Proposed Designation	Acreage	Proposed Designation	Acreage
Twin Coulee WSA	Wilderness values	BLM–AS	WSA / 6,836							
Wild and Scenic Rivers										
Bad Canyon (4.5 miles)	Scenic	BLM–AS	WSR eligible	4.5 miles	WSR eligible and suitable	4.5 miles	WSR eligible	4.5 miles	No SD	0 miles
Bear Canyon (1.62 miles)	Recreational	BLM–AS	WSR eligible	1.62 miles	WSR eligible and suitable	1.62 miles	WSR eligible	1.62 miles	No SD	0 miles
Crooked Creek (upper) (1.59 miles)	Wild	BLM–AS	WSR eligible	1.59 miles	WSR eligible and suitable	1.59 miles	WSR eligible	1.59 miles	WSR suitable (Wild)	1.59 miles
Crooked Creek (lower) (1.56 miles)	Scenic	BLM–AS	WSR eligible	1.56 miles	WSR eligible and suitable	1.56 miles	WSR eligible	1.56 miles	WSR suitable (Scenic)	1.56 miles
Gyp Springs (0.46 miles)	Recreational	BLM–AS	WSR eligible	0.46 miles	WSR eligible and suitable	0.46 miles	WSR eligible	0.46 miles	No SD	0 miles
Piney Creek (0.16 miles)	Recreational	BLM–AS	WSR eligible	0.16 miles	WSR eligible and suitable	0.16 miles	WSR eligible	0.16 miles	No SD	0 miles
Yellowstone River / Pompeys Pillar (4.19 miles)	Recreational	BLM–AS	WSR eligible	4.19 miles	WSR eligible and suitable	4.19 miles	WSR eligible	4.19 miles	No SD	0 miles
National Historic Trails										
Lewis and Clark NHT	National Historic Trail values	BLM–AS	NHT / 3 miles							
Nez Perce NHT	National Historic Trail values	BLM–AS	NHT / 5 miles							

Notes:

ACEC Area of Critical Environmental Concern
BLM–AS Bureau of Land Management Administered Surface
No SD No Special Designation
WSA Wilderness Study Area
BLM Bureau of Land Management
HR Horse Range
NHT National Historic Trail
WSR Wild and Scenic River

2.5.1 Alternative A (No Action Alternative)

2.5.1.1 Overview of Alternative A

Alternative A represents the continuation of current management under the existing land use plan (1984), as amended. Direction contained in existing laws, regulation and policy would also continue to be implemented. This alternative provides the baseline against which to compare the other alternatives. Under Alternative A, resources, resource uses, and sensitive habitats would receive management emphasis (methods and mix of multiple use management of public land) at present levels. In general, most activities would be analyzed on a case-by-case basis, and few uses would be limited or excluded as long as land health standards would be met.

2.5.1.2 Physical, Biological, and Cultural/Heritage Resources

Alternative A restricts surface disturbance on 33,908 acres of highly erosive soils, surface disturbance is restricted on 10,114 acres in riparian areas and floodplains, surface disturbing activities are not restricted in fisheries, and there are restrictions on 4,847 acres on or near cultural sites.

Under Alternative A, there would be no established sage-grouse Protection Priority Areas or Restoration Areas, all would be managed as general habitat.

Wildfire would not be used to meet resource objectives and prescribed fire and non-prescribed fire fuels treatments would treat 6,280 acres over a 10 year period.

Over the 20 year life of this plan, approximately 20,806 acres of forest and woodlands would be available for potential treatment, with an estimated 840 acres available for the sale of wood products, 160 acres of crested wheatgrass in rangelands would be treated, and 366 to 5,548 acres of invasive species and noxious weeds would be treated per year under Alternative A,

The Herd Management Area would consist of 24,595 acres of the BLM administered surface (37,494 total acres of all federal surface ownerships (BLM, USFS, NPS)).

Under Alternative A, approximately 42,270 acres are identified as Visual Resource Management (VRM) Class II and there are 1,925 acres containing lands with wilderness characteristics under Alternative A.

2.5.1.3 Resource Uses and Support

Fluid minerals are available for leasing on 264,534 acres of the BLM administered federal mineral estate with standard lease terms. Fluid minerals are available for leasing on 369,048 acres of the BLM administered federal mineral estate with major and moderate constraints. Fluid minerals are not available for leasing on 39,730 acres of the BLM administered federal mineral estate. Coal is not available for leasing on 26,131 acres. A total of 1,855 acres of the BLM administered federal mineral estate (locatable minerals) are withdrawn from mineral

entry and an additional 39,700 acres are proposed for withdrawal. Under Alternative A, a total of 44,583 acres are closed to mineral material sales.

Under Alternative A, the sale of forest and woodland products would be allowed on approximately 42 acres per year.

Approximately 7,463 acres of public land would be available for disposal with an additional 2,088 acres identified for further study. Rights-of-Way (ROW) exclusion and avoidance areas encompass 68,217 acres of the BLM administered surface (ROW exclusion: 44,014 acres, ROW avoidance: 24,203 acres). There would be one designated ROW corridor under this Alternative, encompassing 1,579 acres of the BLM administered surface.

Livestock grazing would be permitted on 387,057 acres and 37,408 acres would be closed to livestock grazing.

Under Alternative A, the BLM maintains two Special Recreation Management Areas (SMRAs): Sundance Lodge Recreation Area (387 acres) and Four Dances Natural Area ACEC (784 acres). The other seven areas receiving concentrated recreation are managed as Extensive Recreation Management Areas: Shepherd Ah-Nei Recreation Area (4,680 acres), Acton Recreation Area (3,697 acres), South Hills TMA (1,357 acres), Pryor Mountain TMA (81,227 acres), Horsethief TMA (12,261 acres), 17 Mile (2,080 acres), and Asparagus Point (158 acres).

Travel Management Areas are not delineated in the decision area. Off-highway vehicle use would be limited to existing roads and trails in the planning area, however in the following areas: Pryors, Acton, Shepherd Ah-Nei, and Horsethief, motorized travel would be restricted to designated routes. South Hills would be designated open for motorcycle use only.

Under Alternative A, the BLM responds to proposals for renewable wind energy development within the decision area on a case-by-case basis. Although interests in wind energy have increased, no wind farms currently exist in the planning area on the BLM administered surface. The area of the BLM administered surface open to renewable wind energy development, but still subject to terms and conditions identified during the right-of-way application process is 361,514 acres. The area of the BLM administered surface closed to renewable wind energy development is 47,496 acres. Alternative A has the highest number of acres available for renewable energy development.

2.5.1.4 Special Designations

Nine ACECs would be retained totaling 37,896 acres. Currently, special designations in the decision area include Pompeys Pillar National Monument and ACEC (432 acres), eight additional ACECs: Bridger Fossil Area ACEC (577 acres), Castle Butte (184 acres), East Pryor ACEC (29,550 acres), Four Dances Natural Area ACEC (784 acres), Meeteetse Spires ACEC (965 acres), Petroglyph Canyon ACEC (240 acres), Stark Site ACEC (799 acres), and Weatherman Draw ACEC (4,365 acres). Special designations also include the Pryor Mountain Wild Horse Range (37,494 acres) and the Lewis and Clark and Nez Perce National Historic

Trails. Under Alternative A, the seven eligible river segments (14.08 miles) would be managed to protect their outstandingly remarkable values and free-flowing nature. These designations continue and there would be no additional special designations are established under Alternative A.

2.5.2 Alternative B

2.5.2.1 Overview of Alternative B

Alternative B would emphasize the conservation of physical, biological, and/or cultural resources over commodity production, mineral extraction, and motorized recreation. Relative to all alternatives, Alternative B conserves the most land area for physical, biological, and cultural resources, closes the most miles of roads in TMAs, and is the most restrictive to coal and fluid mineral leasing and the most restrictive to renewable energy development. Management actions would focus on maintaining those ecological systems that are functioning and healthy and the restoration of ecological systems that have been degraded or altered. Production of food, fiber, minerals and services would be more constrained than in most other alternatives, and in some cases and in some areas, uses would be excluded to protect sensitive or fragile resources.

2.5.2.2 Physical, Biological, and Cultural/Heritage Resources

Alternative B restricts surface disturbance on 47,795 acres of highly erosive soils, surface disturbance is restricted on 24,373 acres in riparian areas and floodplains, surface disturbing activities are restricted on 15,693 acres in fisheries: Blue Ribbon Streams, Red Ribbon Streams, YCT Conservation populations, and YCT suitable habitat, and there are restrictions on surface development on 11,384 acres on or near cultural sites.

Sage-grouse General Habitat Areas consists of 78,575 acres of the BLM administered surface and 116,452 acres of the BLM administered federal mineral estate. Sage-grouse Protection Priority Areas consist of 154,140 acres of the BLM administered surface and 191,543 acres of the BLM administered federal mineral estate. Sage-grouse Restoration Areas consist of 45,555 acres of the BLM administered surface and 63,437 acres of the BLM administered federal mineral estate. These acres are the same for the Action Alternatives (B, C, and D). Under this alternative only, the sage-grouse Protection Priority Areas (BLM administered surface - 154,140 acres) would be administered as an ACEC.

Over a 10 year period wildfire would be used to meet resource objectives on 52,548 acres and prescribed and non-prescribed fire fuels treatments would treat 21,700 acres over a 10 year period.

Over the 20 year life of this plan, approximately 18,375 acres of forest and woodlands would be available for potential treatment, with an estimated 1,340 acres available for the sale of wood products, 22,414 acres of crested wheatgrass would be treated, and 200 to 800 acres of invasive species and noxious weeds would be treated per year under Alternative B.

The Herd Management Area would consist of 23,204 acres of the BLM administered surface (31,153 total acres of all federal surface ownerships (BLM, USFS, NPS)).

Under Alternative B, approximately 29,823 acres would be designated as Visual Resource Management Class I and 15,688 acres would be designated as Visual Resource Management Class II. There are 12 tracts totaling 27,292 acres of land that would be managed for wilderness characteristics.

2.5.2.3 Resource Uses and Support

Fluid minerals are available for leasing on 67,726 acres of the BLM administered federal mineral estate with standard lease terms. Fluid minerals are available for leasing on 354,136 acres of the BLM administered federal mineral estate with major and moderate constraints. Fluid minerals are not available for leasing on 302,713 acres of the BLM administered federal mineral estate. Coal is not available for leasing on 290,048 acres. A total of 1,855 acres of the BLM administered federal mineral estate (locatable minerals) are currently withdrawn from mineral entry and an additional 269,122 acres are proposed for withdrawal, totaling 270,977 acres. Under Alternative B, a total of 343,745 acres are closed to mineral material sales.

Under Alternative B, the sale of forest and woodlands products would be allowed on approximately 67 acres per year.

Approximately 50 acres of public land would be available for disposal. Rights-of-Way (ROW) exclusion and avoidance areas encompass 369,911 acres of the BLM administered surface (ROW exclusion: 211,384 acres, ROW avoidance: 185,607 acres). There is one designated ROW corridor under this Alternative, encompassing 1,579 acres of the BLM administered surface and Silver Tip Road would not be designated a ROW corridor under Alternative B.

Livestock grazing would be permitted on 386,092 acres and 38,373 acres would be closed to livestock grazing.

Under Alternative B, the BLM would maintain two Special Recreation Management Areas (SMRAs): Sundance Lodge Recreation Area (387 acres) and Four Dances Natural Area ACEC (784 acres) and propose four additional SRMAs: Acton Recreation Area (3,697 acres), Bundy Island (98 acres), Pryor Mountain TMA (81,277 acres), and Shepherd Ah-Nei Recreation Area (4,680 acres). The other areas receiving concentrated recreation use would be managed as Extensive Recreation Management Areas (ERMAs): South Hills TMA (1,357 acres), Horsethief TMA (12,261 acres), 17 Mile (2,080 acres), Asparagus Point (158 acres), and the Yellowstone River Corridor (6,213 acres).

Travel Management Areas are delineated in the decision area. OHV use is limited to existing roads and trails except in the 11 TMAs where OHV use is limited to designated routes (391.5 miles closed to motorized vehicle use in the 11 TMAs and 348.1 miles open to motorized vehicle use in 11 TMAs). South Hills would be closed to motorized travel.

Under Alternative B, the area of the BLM administered surface open to renewable wind energy development is 0 acres. The area of the BLM administered surface closed to renewable wind energy development is 345,491 acres. Alternative B has the fewest acres open to renewable energy development.

2.5.2.4 Special Designations

Nine ACECs would be retained and three new ACECs would be designated totaling 181,175 acres. Currently, special designations in the decision area include Pompeys Pillar National Monument and ACEC (432 acres), ten additional ACECs: Bridger Fossil Area ACEC (577 acres), Castle Butte (184 acres), East Pryor ACEC (8,301 acres), Four Dances Natural Area ACEC (784 acres), Grove Creek ACEC (8,251 acres), Meeteetse Spires ACEC (1,523 acres), Petroglyph Canyon ACEC (240 acres), Pryor Foothills RNA ACEC (958 acres), Stark Site ACEC (799 acres), Weatherman Draw ACEC (4,986 acres), and Greater Sage-Grouse Habitat ACEC (154,140 acres). Under Alternative B, the proposed management of the ACECs is the most restrictive for resource uses.

The Greater Sage-Grouse PPA area (BLM administered surface only) would be designated an ACEC (154,140 acres) to protect priority habitat for the Greater Sage-Grouse (see maps 168 and 169). The area would be managed consistent with the specific management actions and direction described under the Greater Sage-Grouse PPA areas (refer to Table 2-6.1, pages 2-76 through 2-79, Wildlife and Special Status Species) to protect habitat and minimize fragmentation.

Special designations also include the Pryor Mountain Wild Horse Range (31,153 acres), four WSAs (28,631 acres) and the Lewis and Clark and Nez Perce National Historic Trails. Under Alternative B, the seven eligible river segments (14.08 miles) would be recommended as suitable for inclusion in the National Wild and Scenic River System to protect their outstandingly remarkable values and free-flowing nature.

2.5.3 Alternative C

2.5.3.1 Overview of the Alternative

Alternative C would emphasize commodity production (forage, minerals, etc.), motorized recreational access, and services. Among the three action alternatives (B, C, and D), Alternative C closes the least miles of roads in TMAs, is the least restrictive to coal and fluid mineral leasing. Under this alternative, constraints on commodity production for the protection of sensitive resources would be the least restrictive possible within the limits defined by law, regulation and BLM policy, including the ESA, cultural resource protection laws and wetland preservation. In this alternative, constraints to protect sensitive resources would tend to be implemented in specified geographic areas rather than across the entire planning area.

2.5.3.2 Physical, Biological, and Cultural/Heritage Resources

Alternative C restricts surface disturbance on highly erosive soils on the least number of acres of all the alternatives (16,782 acres). Surface disturbance is restricted on only 6,666 acres in riparian areas and floodplains, and on 806 acres in fisheries: Blue Ribbon Streams and YCT suitable habitat. There are restrictions on surface development on 5,407 acres on or near cultural sites.

The acreages for Greater Sage-grouse PPAs, RAs, and general habitat areas have remained the same for all alternatives.

Wildfire would not be used to meet resource objectives and prescribed fire and non-prescribed fire fuels treatments would treat 21,700 acres over a 10 year period.

Over the 20 year life of this plan, approximately 24,443 acres of forest and woodlands would be available for potential treatment, with an estimated 2,240 acres available for the sale of wood products, 7,500 acres of crested wheatgrass would be treated, and 1,500 to 3,000 acres of invasive species and noxious weeds would be treated per year under Alternative C.

The Herd Management Area would consist of 28,622 acres of the BLM administered surface (44,855 total acres of all federal surface ownerships (BLM, USFS, NPS)).

Under Alternative C, approximately 26,040 acres would be designated as Visual Resource Management Class I and 20,498 acres would be designated as Visual Resource Management Class II. There are four tracts totaling 3,379 acres of land that would be managed for wilderness characteristics.

2.5.3.3 Resource Uses and Support

Fluid minerals are available for leasing on 126,732 acres of the BLM administered federal mineral estate with standard lease terms. Fluid minerals are available for leasing on 483,419 acres of the BLM administered federal mineral estate with major and moderate constraints. Fluid minerals are not available for leasing on 65,891 acres of the BLM administered federal mineral estate. Coal is not available for leasing on 264,450 acres. A total of 1,855 acres of the BLM administered federal mineral estate are withdrawn from mineral entry and an additional 35,100 acres are proposed for withdrawal, totaling 36,955 acres. Under Alternative C, a total of 251,927 acres are closed to mineral material sales.

Under Alternative C, the sale of forest and woodland products would be allowed on approximately 112 acres per year.

Approximately 4,223 acres of public land would be available for disposal. Rights-of-Way (ROW) exclusion and avoidance areas encompass 395,092 acres of the BLM administered surface (ROW exclusion: 39,491 acres, ROW avoidance: 355,601 acres). There are two designed ROW corridors under this alternative, encompassing 13,832 acres of the BLM administered surface.

Livestock grazing would be permitted on 386,822 acres and 28,622 acres would be closed to livestock grazing.

Under Alternative C, the BLM would maintain two Special Recreation Management Areas (SMRAs): Sundance Lodge Recreation Area (387 acres) and Four Dances Natural Area ACEC (784 acres) and propose nine additional SRMAs: Acton Recreation Area (3,697 acres), Asparagus Point (158 acres), Horsethief TMA (12,261 acres), Mill Creek/Bundy TMA (34,239 acres), Pryor Mountain TMA (81,277 acres), 17 Mile (2,080 acres), Shepherd Ah-Nei Recreation Area (4,680 acres), South Hills TMA (1,357 acres), and the Yellowstone River Corridor (6,213 acres). No Extensive Recreation Management Areas (ERMAs) are proposed under Alternative C.

Travel Management Areas (TMAs) are delineated in the decision area. OHV use is limited to existing roads and trails except in the 11 TMAs where OHV use is limited to designated routes (5.6 miles closed to motorized vehicle use in the 11 TMAs and 831.1 miles open to motorized vehicle use in 11 TMAs). South Hills would be designated open for motorcycle use only.

Under Alternative C, the area of BLM administered surface open to renewable wind energy development, but still subject to terms and conditions identified during the right-of-way application review process, is 21,349 acres. The area of BLM administered surface closed to renewable wind energy development is 82,019 acres.

2.5.3.4 Special Designations

Nine ACECs would be retained and two new ACECs would be designated totaling 67,079 acres.

The special designations in the decision area include Pompeys Pillar National Monument and ACEC (432 acres), ten additional ACECs: Bridger Fossil Area ACEC (577 acres), Castle Butte (184 acres), East Pryor ACEC (32,767 acres), Four Dances Natural Area ACEC (784 acres), Grove Creek ACEC (9,445 acres), Meeteetse Spires ACEC (2,173 acres), Petroglyph Canyon ACEC (240 acres), Pryor Foothills RNA ACEC (7,401 acres), Stark Site ACEC (799 acres), and Weatherman Draw ACEC (12,277 acres). Under Alternative C the proposed management of the ACECs is the least restrictive for resource uses.

Under Alternative C, the Greater Sage-Grouse PPA area would not be designated an ACEC. Priority habitat for Greater Sage-Grouse in the planning area would be protected as described in the Greater Sage-Grouse PPA areas and associated management actions (refer to Table 2-6.1, pages 2-76 through 2-79 Wildlife and Special Status Species, Greater Sage-Grouse PPA management).

Special designations also include the Pryor Mountain Wild Horse Range (44,855 acres), four WSAs (28,631 acres) and the Lewis and Clark and Nez Perce National Historic Trails. Under Alternative C, the seven eligible river segments (14.08 miles) would be managed to protect their outstandingly remarkable values and free-flowing nature, however, none of the seven

eligible river segments would be recommended as suitable for inclusion in the National Wild and Scenic River System.

2.5.4 Alternative D (Preferred Alternative)

2.5.4.1 Overview of the Alternative

Alternative D addresses the key planning issues identified in Chapter 1 by incorporating elements from each of the other alternatives to strike a balance between long-term conservation of public land and resources within the planning area with commodity production, recreational access, and services. Regarding the conservation of physical, biological, and cultural resources and restrictions on mineral leasing, Alternative D is generally between alternatives B and C. Alternative D represents an approach to land management that address the issues, management concerns and purpose and need while balancing resources and resource uses. Among the action alternatives (B, C, and D), Alternative D has the most acres available for renewable energy development and the fewest acres closed to renewable energy development.

2.5.4.2 Physical, Biological, and Cultural/Heritage Resources

Alternative D restricts surface disturbance on highly erosive soils on the same number of acres as Alternative B (47,795 acres), however surface disturbance is restricted on 9,087 acres in riparian areas and floodplains, and on 2,068 acres in fisheries: Blue Ribbon Streams and YCT suitable habitat. There are restrictions on surface development on 14,988 acres on or near cultural sites.

The acreages for Sage-grouse PPAs, RAs, and general habitat areas are the same for Alternatives C and D. Sage-grouse General Habitat Areas consists of 78,575 acres of the BLM administered surface and 116,452 acres of the BLM administered federal mineral estate. Sage-grouse Protection Priority Areas consist of 154,140 acres of the BLM administered surface and 191,543 acres of the BLM administered federal mineral estate. Sage-grouse Restoration Areas consist of 45,555 acres of BLM administered surface and 63,437 acres of the BLM administered federal mineral estate.

Over a 10 year period, wildfire would be used to meet resource objectives on 62,937 acres and prescribed and non-prescribed fire fuels treatments would treat 21,700 acres over a 10 year period.

Over the 20 year life of this plan, approximately 18,375 acres of forest and woodlands would be available for potential treatment, with an estimated 1,780 acres available for the sale of wood products; and 12,000 acres of crested wheatgrass would be treated. Under Alternative D, 400 to 2,000 acres of invasive species and noxious weeds would be treated per year.

The Herd Management Area would consist of 27,094 acres of the BLM administered surface (39,944 total acres of all federal surface ownerships (BLM, USFS, NPS)).

Under Alternative D, approximately 28,861 acres would be designated as Visual Resource Management Class I and 13,648 acres would be designated as Visual Resource Management Class II. There are nine tracts totaling 13,653 acres of land that would be managed for wilderness characteristics.

2.5.4.3 Resource Uses and Support

Fluid minerals are available for leasing on 6,158 acres of the BLM administered federal mineral estate with standard lease terms. Fluid minerals are available for leasing on 599,938 acres of the BLM administered federal mineral estate with major and moderate constraints. Fluid minerals are not available for leasing on 72,915 acres of the BLM administered federal mineral estate. Coal is not available for leasing on 280,971 acres of the BLM administered federal mineral estate. A total of 1,855 acres of the BLM administered federal mineral estate (locatable minerals) are withdraw from mineral entry and an additional 52,906 acres are proposed for withdrawal. Under Alternative D, a total of 272,122 acres are closed to mineral material sales.

Under Alternative D, the sale of forest and woodland products would be allowed on approximately 89 acres per year.

Approximately 170 acres of public land would be available for disposal under Alternative D. Rights-of-Way (ROW) exclusion and avoidance areas encompass 397,616 acres of the BLM administered surface (ROW exclusion: 48,258 acres, ROW avoidance: 349,358 acres). There are two designated ROW corridors under this Alternative, encompassing 4,511 acres of the BLM administered surface.

Livestock grazing would be permitted on 387,057 acres and 28,387 acres would be closed to livestock grazing.

Under Alternative D, the BLM would maintain two Special Recreation Management Areas (SRMAs): Sundance Lodge Recreation Area (387 acres) and Four Dances Natural Area ACEC (784 acres) and proposed seven additional SRMAs: Acton Recreation Area (3,697 acres), Asparagus Point (158 acres), Horsethief TMA (12,261 acres), Pryor Mountain TMA (81,277 acres), Shepherd Ah-Nei Recreation Area (4,680 acres), South Hills TMA (1,357 acres), and the Yellowstone River Corridor (6,213 acres). The other areas receiving concentrated recreation use would be managed as Extensive Recreation Management Areas (ERMAs): 17 Mile (2,080 acres) and the Mill Creek area (34,239 acres).

Travel Management Areas (TMAs) area delineated in the decision area. OHV use is limited to existing roads and trails except in the 11 TMAs where OHV use is limited to designated routes (59.9 miles closed to motorized vehicle use in the 11 TMAs and 616.7 miles open to motorized vehicle use in 11 TMAs). South Hills would be designated open for motorcycle use only.

Under Alternative D, the area of BLM administered surface open to renewable wind energy development, but still subject to terms and conditions identified during the right-of-way

application process, is 20,937 acres. The area of BLM administered surface closed to renewable wind energy development is 78,088 acres.

2.5.4.4 Special Designations

Nine ACECs would be retained and two new ACECs would be designated totaling 38,786 acres.

The special designations in the decision area include Pompeys Pillar National Monument and ACEC (432 acres), ten additional ACECs: Bridger Fossil Area ACEC (577 acres), Castle Butte (184 acres), East Pryor ACEC (11,122 acres), Four Dances Natural Area ACEC (784 acres), Grove Creek ACEC (8,251 acres), Meeteetse Spires ACEC (1,523 acres), Petroglyph Canyon ACEC (240 acres), Pryor Foothills RNA ACEC (2,606 acres), Stark Site ACEC (799 acres), and Weatherman Draw ACEC (12,277 acres).

Under Alternative D, the Greater Sage-Grouse PPA area would not be designated an ACEC. Priority habitat for Greater Sage-Grouse in the planning area would be protected as described in the Greater Sage-Grouse PPA areas and associated management actions (refer to Table 2-6.1, pages 2-76 through 2-79 Wildlife and Special Status Species, Greater Sage-Grouse PPA management).

Special designations also include the Pryor Mountain Wild Horse Range (39,944 acres), four WSAs (27,094 acres) and the Lewis and Clark and Nez Perce National Historic Trails. Under Alternative D, only two river segments (3.15 miles) would be recommended and suitable for inclusion in the National Wild and Scenic River System.

2.6 Alternatives Considered in Detail

RMPs are broad-scale land management plans that establish desired outcomes for resource management, and identify the measures deemed likely to achieve those outcomes. The following format of the alternatives identifies the desired outcomes for each resource and resource use. The goals and objectives are followed by different sets of management actions, allowable uses, and use allocations for each alternative—these identify areas and acreages where certain land uses would be prohibited, restricted, or allowed, as well as proactive management measures- that would achieve those goals and objectives.

Once an alternative is selected, the broad, plan-level decisions included in that alternative would become the RMP and provide the framework for site-specific management decisions and actions. Some implementation-level decisions have been included within the alternatives (e.g., travel management route designations, management actions within Areas of Critical Environmental Concern (ACECs), etc.), and are analyzed as part of each alternative. Though all future implementation decisions and administrative actions are influenced by the alternative ultimately selected by the BLM as the new RMP, these do not need to be determined as part of the planning process for this RMP.

Table 2-6 identifies goals and objectives, management actions common to all alternatives, and management actions by alternative. These are arranged according to the following resource topics: (see Table 2-3)

A detailed narrative, including tables, for Fluid Minerals is included in Chapter 2 to describe the changes by alternative for fluid mineral leasing restrictions.

Table 2-3 Organization of Comprehensive Alternatives Table

Physical, Biological, and Heritage Resources	Resource Uses	Special Designations	Social and Economic Conditions
• Air • Climate Change • Geology • Soil • Water • Vegetation ▶ Forests and Woodlands ▶ Rangelands ▶ Riparian and Wetlands ▶ Invasive Species and Noxious Weeds ▶ Special Status Plants • Wildlife Habitat and SSS • Fisheries Habitat and SSS • Wild Horses and Burros • Cultural/Heritage Resources • Paleontological Resources • Visual Resources • Fire Ecology & Management • Lands with Wilderness Characteristics • Cave and Karst Resources	• Energy and Mineral Resources ▶ Coal ▶ Fluid Minerals ▶ Locatable Minerals ▶ Mineral Materials • Forestry and Woodland Products • Lands and Realty ▶ Land Tenure Adjustment and Access ▶ Rights-of-Way, Leases, and Permits ▶ Withdrawals • Livestock Grazing • Recreation and Visitor Services • Trails and Travel Management • Renewable Energy • Transportation and Facilities	• Pompeys Pillar National Monument and ACEC • Areas of Critical Environmental Concern ▶ Bridger Fossil Area ACEC ▶ Castle Butte ACEC ▶ East Pryor ACEC ▶ Four Dances Natural Area ACEC ▶ Grove Creek ACEC ▶ Meeteetse Spires ACEC ▶ Petroglyph Canyon ACEC ▶ Pryor Foothills RNA ACEC ▶ Stark Site ACEC ▶ Weatherman Draw ACEC • Wilderness Study Areas ▶ Big Horn Tack-On WSA ▶ Burnt Timber WSA ▶ Pryor Mountain WSA ▶ Twin Coulee WSA • Wild and Scenic Rivers ▶ Bad Canyon ▶ Bear Canyon ▶ Crooked Creek (2 segments) ▶ Gyp Springs ▶ Piney Creek ▶ Yellowstone River/Pompeys Pillar • Pryor Mountain Wild Horse Range • National Historic Trails ▶ Nez Perce NHT ▶ Lewis and Clark NHT	• Economic Conditions • Social Conditions • Environmental Justice • Tribal Concerns/ Tribal Treaty Rights

2.6.1 Format of the Alternatives

Management actions are anticipated to achieve the goals and objectives identified for each resource topic. Some Management actions are constant across all alternatives, whereas others vary by alternative. Management actions that apply to all alternatives are listed for each resource topic under the heading *Management Actions Common to All Alternatives* immediately following the desired outcomes (goals and objectives) for each resource topic. Management actions common to Alternatives B, C, and D are listed under the heading *Management Common to Action Alternatives*. Management actions that vary by alternative are listed under the heading *Management Actions by Alternative*.

The following apply under all alternatives:

- Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the State of Montana (Appendix I)
- Best Management Practices (Appendix B)

Restrictions on resource uses apply to the life of the RMP, but can be changed by amending the RMP. For example, areas identified as closed to leasing refer to minerals deferred from leasing for the life of the RMP unless changed through an RMP amendment and public involvement. Moreover, where seasonal or other restrictions or limitations are placed on development, exception, wavier, or modification of these limitations may be approved in writing, including documented supporting analysis, by the authorized officer. This applied to all restrictions and limitations.

2.6.2 Energy and Minerals

The general mining laws give the public the right to locate and develop mining claims on public land. The Mining and Minerals Policy Act of 1970 declares that it is the continuing policy of the federal government to foster and encourage private enterprise in the development of domestic mineral resources. Section 102 of the Federal Land Policy and Management Act of 1976 directs that the public land would be managed in a manner that recognizes the Nation's need for domestic sources of minerals and other commodities from the public lands, while protecting scientific, scenic, historic, archeological, ecological, environmental, air and atmospheric and hydrologic values. The BLM's mineral and national energy policy states that public lands shall remain open and available for mineral exploration and development unless withdrawal or other administrative action is justified in the national interest.

Federally owned minerals in the public domain are classified into three categories: leasable minerals, locatable minerals, and mineral materials as discussed below. The classifications are based on acts passed by the U.S. Congress. These acts provide the opportunity for the public to explore for, develop, and produce publicly owned minerals.

Leasable minerals are those minerals on public lands where the land is leased to individuals for their exploration and development. The leasable minerals have been subdivided into two classes, fluid and solid. Fluid minerals include oil and gas; geothermal resources and associated by-products; and oil shale, native asphalt, oil impregnated sands, and any other material in which oil is recoverable only by special treatment after the deposit is mined or quarried. Solid leasable minerals are those leased under the mineral leasing acts and those hardrock minerals leased under Reorganization Plan No. 3 of 1946 (acquired lands). Solid leasable minerals are specific minerals such as coal and phosphates. All minerals on acquired lands are considered to be leasable minerals. Leasable minerals are associated with the following laws: Mineral Leasing Act of 1920, as amended and supplemented, Mineral Leasing Act for Acquired Lands of 1947, as amended, and the Geothermal Steam Act of 1970, as amended.

Locatable minerals are those "minerals acquired through the General Mining Law of 1872, as amended" (National Research Council 1999). Locatable minerals can include gold, silver, platinum, lead, zinc, magnesium, nickel, tungsten, bentonite, barite, feldspar, uranium, and uncommon varieties of sand, gravel, and stone. Locatable minerals on public lands (if open to mineral entry) can be acquired by initially staking claims over the deposits. However, before mining can occur, permits from various state and federal agencies must be obtained.

Mineral materials are common varieties of minerals such as sand, gravel, rock, cinders, and common clay. Mineral materials are disposed of through sales contracts or free use permits and are regulated under the Mineral Material Act of July 23, 1947, as amended, and the Surface Use and Occupancy Act of July 23, 1955. Disturbance of public lands in association with mineral material sales is considered a discretionary activity. This means that the action may be denied if resource concerns cannot be protected or mitigated.

2.6.2.1 Leasable Fluid Minerals

2.6.2.1.1 Management Common to All Alternatives

Goals and Objectives (Fluid Leasable Minerals)

- Provide opportunities for exploration and development of fluid mineral resources on available public lands
- Provide opportunities for exploring, leasing, and developing conventional oil and gas, coal bed natural gas, and geothermal resources while applying the appropriate lease stipulations and conditions of approval to mitigate environmental impacts from development
- Provide opportunities for geophysical (e.g. seismic) exploration for oil and gas subject to the appropriate mitigating measures

Oil and Gas

Federal oil and gas leasing authority for public lands is found in the Mineral Leasing Act of 1920, as amended; and for acquired lands in the Acquired Lands Leasing Act of 1947, as amended. Leasing of federal oil and gas is affected by other acts such as the National Environmental Policy Act of 1969, the National Historic Preservation Act of 1966, FLPMA (1976), the Wilderness Act of 1964, the Endangered Species Act of 1973, as amended, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. Regulations and other guidance governing federal oil and gas leasing and lease operations are contained in 43 CFR Group 3100, Onshore Operating Orders, Notices to Lessees, and BLM handbooks manuals and instruction memorandums. Regulations governing geophysical exploration are found at 43 CFR 3150.

An oil and gas lease grants the lessee the right to explore for, extract, remove, and dispose of oil and gas deposits that may be found on the leased lands. The lessee may exercise the rights conveyed by the lease, subject to lease terms and any lease stipulations (modifications of the lease), and permit approval requirements.

The terms of existing oil and gas leases cannot be changed by the decisions in this document. When the lease expires, the area would be managed for oil and gas according to the decisions reached in this document.

The BLM planning process determines availability of federal mineral estate lands for oil and gas leasing (Table 2-4).

Table 2-4 Acres of Federal Mineral Estate Available or Not for Oil and Gas Leasing

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Acres Available for Oil and Gas Leasing[1]	633,582	421,852	610,151	606,096
No Surface Occupancy	32,595	28,110	64,135	263,185
Timing Limitations	308,116	249,460	316,602	315,317
Controlled Surface Use	28,337	76,556	102,682	21,436
Standard Lease Terms	264,534	67,726	126,732	6,158
Areas Unavailable for Oil and Gas Leasing	39,729	251,459	63,160	67,215
Non-discretionary	28,682	28,682	28,682	28,682
Discretionary	11,048	274,031	37,209	44,233

Note:

[1] Acreages by subcategory were calculated such that each column of subcategories under each alternative adds up to the total available acres for leasing based on the following general concepts where multiple stipulations overlapped: No Surface Occupancy stipulations override and are more restrictive than Timing Limitations, Controlled Surface Use, and Standard Lease Terms. Timing Limitation stipulations override and are more restrictive than Controlled Surface Use and Standard Lease Terms. Controlled Surface Use stipulations override and are more restrictive than Standard Lease Terms. Non-overlapping individual stipulation-specific acreages are displayed by alternative in Chapter 4 in Tables 4-29 through 4-40.

For federal oil and gas where the surface is managed by another federal agency, the BLM would consult with that agency before issuing leases. In areas where oil and gas development may conflict with other resources, the areas may be closed to leasing in accordance with decisions made from this document.

Regulations at part 43 CFR 3100.0-3(d); the Secretary's general authority to prevent the waste and dissipation of public property; and the Attorney General's Opinion of April 2, 1941 (Vol. 40 Op. Atty. Gen 41) allow the BLM to lease lands that are otherwise unavailable for leasing if oil and gas is being drained from such lands. If the unavailable lands were under the jurisdiction of another agency, leasing of such lands would only occur following consultation,

and consent if necessary, from the surface managing agency. Unavailable lands for this RMP (refer to table above) would be leased only if a state or fee well is proposed or completed within the same spacing unit, or if the lands are within a producing unit. These lands would be leased with a no surface occupancy and no subsurface occupancy stipulation with no waiver, modification, or exception provisions. There would only be a paper transaction with no physical impacts on the unavailable lands. There would be no exploration or development (drilling or production) within the unavailable lands. After issuance of a lease, the lease would be committed to a communitization agreement and the United States would then receive revenue in proportion to its acreage interest as it bears to the entire acreage interest committed to the agreements.

Areas where oil and gas development could coexist with other resource uses would be open to leasing under standard lease terms or with added stipulations. Stipulations are a part of the lease only when environmental and planning records show the need for them. Three types of stipulations describe how lease rights are modified: no surface occupancy, timing limitation (seasonal restriction), and controlled surface use (for descriptions, see Leasing Process in the Oil and Gas section of Appendices C and D – Fluid Mineral**s**). Stipulations may be changed by application of waivers, exceptions, or modifications. The decision whether to grant waivers, exceptions, or modifications generally occurs during the Application for Permit to Drill approval process. If the authorized officer determines the change to be substantial, the preferred alternative would be subject to a 30-day public review period. Waivers are a permanent exemption from a lease stipulation. This occurs when the resource does not require the protection of stipulation. Exceptions are granted on a case-by-case basis. Each time the lessee applies for an exception, the resource objective of the stipulation must be met. Modifications are fundamental changes to the provisions of a lease stipulation either temporarily or for the term of the lease.

On Bureau of Reclamation or Corps of Engineers lands, in addition to the resource specific stipulations under each alternative (e.g., wildlife, recreation); stipulations that are recommended by the Bureau of Reclamation would be used (see Oil and Gas section in Appendix C – Fluid Minerals).

Additional information can be provided to the lessee in the form of a lease notice. This notice does not place restrictions on lease operation, but does provide information about applicable laws and regulations, and the requirements for additional information to be supplied by the lessee.

New information may lead to changes in existing resource inventories. New use areas and resource locations may be identified or use areas and resource locations that are no longer valid may be identified. These resources usually cover small areas requiring the same protection or mitigation as identified in this plan. Identification of new areas or removal of old areas that no longer have those resource values would result in the use of the same lease stipulation identified in this plan. These areas would be added to the existing data inventory without a plan amendment. In cases where the changes constitute a change in resource allocation outside the scope of this plan, a plan amendment would be required.

After lease issuance, the lessee may conduct lease operations with an approved permit. Proposed drilling and associated activities must be approved before beginning operations. The operator must file an Application for Permit to Drill or Sundry Notice that must be approved according to (1) lease stipulations, (2) Onshore Oil and Gas Order, and (3) regulations and laws (see Permitting in the Oil and Gas section of Appendix C – Fluid Minerals).

None of the lands within the Wilderness Study Areas (WSA) would be available for oil and gas leasing under any of the alternatives unless they are released from their existing status, at which point they would be managed under the terms and conditions of the selected alternative identified from this RMP.

Table 2-5 Lease Terms and Stipulations by Alternative

Key

TL = Timing Limitation Stipulation NSO = No Surface Occupancy Stipulation

CSU = Controlled Surface Use Stipulation NL = No Lease

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Distances are enumerated and those equal or greater than 100 are feet and those 3 or less are miles. Time periods are month/day

Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
Wildlife				
Black-tailed and White-tailed Prairie Dogs	CSU – Prior to surface-disturbing activities, prairie dog colonies and complexes 80 acres or more in size and containing 5 burrows per acre will be examined to determine the presence or absence of black-footed ferrets.	NSO – Oil and gas leasing, development, and exploration, and geothermal operations would be prohibited within 0.5 mile of black-tailed or white-tailed prairie dog colonies, active within the past 10 years.	CSU – Oil and gas leasing, development and exploration, and geothermal operations would be allowed with within black-tailed or white-tailed prairie dog colonies with a mitigation plan	NSO – Oil and gas leasing, development and exploration, and geothermal operations would be prohibited within 0.25 mile of black-tailed or white-tailed prairie dog colonies, active within the past 10 years.
Potential Black-Footed Ferret Areas >80 Acres	Prior to surface disturbance, potential black-footed ferret habitat (prairie dog colonies and complexes 80 acres or more in size and not designated as black-footed ferret reintroduction sites) would be examined to determine the absence or presence of black-footed ferrets (CSU). The findings of this examination could result in some restrictions to the operator's plans or could even preclude use and occupancy that would be in violation of the Endangered Species Act of 1973. Oil and gas leasing, development, and exploration and geothermal operations would be allowed with the above CSU.			
Mountain Plover	NSO – Surface use is prohibited within 0.25 mile of active mountain plover nest sites. Disturbance to prairie dog towns will be avoided where possible. Any active prairie dog town occupied by mountain plovers will have no surface use between April 1 and July 31.	NSO – mountain plover habitat within ½ mile.	CSU –mountain plover habitat within ¼ mile.	NSO – mountain plover habitat within ¼ mile.
	TL – No surface use between April 1 and July 31.	NSO only	NSO only	TL – April 1 through July 31 within 1/4 mile of habitat.
Peregrine Falcon	NSO – 1 mile of peregrine falcon nesting sites.	NSO – 1 mile of peregrine falcon nesting sites.	NSO – ¼ mile of active peregrine falcon nesting sites.	NSO – ½ mile of peregrine falcon nesting sites.
Bald Eagle Nests & Habitat	NSO – within ½ mile of eagle nest sites which have been active within the past 7 years and within eagle nesting habitat in riparian areas.	NSO – within 1 mile of eagle nest sites which have been active in the past 7 years and within eagle nesting habitat in riparian areas.	NSO – within ¼ mile of active eagle nest sites.	NSO – within ½ mile of active and alternate eagle nests (for territories occupied within the last five years) unless the activity complies with Montana bald eagle management guidelines.

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
Ferruginous Hawks	NSO – within ½ mile of ferruginous hawk nest sites which have been active within the past 2 years.	NSO – within ½ mile of ferruginous hawk nest sites which have been active within the past 7years.	CSU – within 300 feet of any ferruginous hawk nest at any time if the activities would cause nest abandonment, unless specific practices are successfully implemented to maintain or increase nesting opportunities at other sites.	NSO – within ½ mile of ferruginous hawk nest sites which have been active within the past 2 years.
Greater Sage-Grouse – All Sage Grouse Habitat	NSO – ¼ mile of sage-grouse leks.	CSUs in Appendix C for all sage grouse habitat.	Refer to CSUs Appendix C for PPA sage grouse habitat.	Refer to CSUs in Appendix C for all sage grouse habitat.
	TL – Surface use is prohibited from December 1 to March 31 within crucial winter range for wildlife.	TL – December 1 to March 1 within greater sage-grouse winter range within 4 miles of a lek.	TL – December 1 to March 1 within greater sage-grouse winter range within 2 miles of a lek.	TL – December 1 to March 1 within greater sage-grouse winter range within 2 miles of a lek.
		CSU – Surface occupancy and use for oil and gas exploration (including geophysical operations) would be subject to special operating constraints, density and / or mitigation plan.		CSU – Surface occupancy and use for oil and gas exploration (including geophysical operations) would be subject to special operating constraints, density and / or mitigation plan.
Greater Sage Grouse – Protection Priority Areas (PPAs) for Habitat	NSO – within ¼ mile of sage-grouse leks	NL – Closed to future oil and gas leasing, exploration and/or development	NSO – within 0.6 miles of sage-grouse leks.	NSO – within sage-grouse PPAs.
			TL – Surface use would be prohibited from March 1 to June 15 in sage-grouse nesting habitat within 2 miles of a lek.	
			CSU – Surface occupancy and use would be subject to the following special operating constraints: surface occupancy and surface disturbance density and mitigation plan.	
Greater Sage Grouse Restoration Areas	NSO – within ¼ mile of sage-grouse leks	NSO – within 0.6 miles of sage-grouse lek.	NSO – within ¼ mile of sage-grouse lek.	NSO – within 0.6 miles of sage-grouse lek.

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
(RAs) – Nesting Habitat		TL – March 1 to June 15 in sage-grouse nesting habitat within 4 miles of a lek	TL – March 1 to June 15 in sage-grouse nesting habitat within 2 miles of a lek	TL – March 1 to June 15 in sage-grouse nesting habitat within 3 miles of a lek.
		CSU – Surface occupancy and use for oil and gas exploration and development would be subject to the following special operating constraints that would maintain sage-grouse habitat: surface disturbance density and mitigation plan.		CSU – Surface occupancy and use for oil and gas exploration and development would be subject to the following special operating constraints that would maintain sage-grouse habitat: surface disturbance density and mitigation plan.
Greater Sage Grouse Restoration Areas (RAs) – Nesting Habitat *(continued)*	Open to geophysical exploration, subject to the following: • Surface occupancy and use would be prohibited within 0.25 miles of sage grouse leks. (NSO; 4,876 acres) • Surface use is prohibited from March 1 to June 15 in grouse nesting habitat within 2 miles of a lek (TL).	Geophysical exploration would be allowed on existing roads and trails with surface use prohibited from March 1 to June 15 within 4 miles of a lek. (TL)	Geophysical exploration would be allowed if the applicant demonstrates that sage-grouse habitat suitability would be maintained.	Geophysical exploration would be allowed on existing roads and trails with surface use prohibited from March 1 to June 15 within 4 miles of a lek. (TL)
Greater Sage Grouse Habitat: General Habitat Areas – "New Oil and Gas Leases" [a]	NSO – within ¼ mile of sage-grouse leks	NSO – within 0.6 miles of sage grouse leks	NSO – within ¼ mile of sage grouse leks	NSO – within 0.6 miles of sage grouse leks
	TL – March 1 to June 15 in sage-grouse nesting habitat within 2 miles of a lek (TL).	TL – March 1 to June 15 in sage grouse nesting habitat within 3 miles of a lek.	TL – March 1 to June 15 in sage-grouse nesting habitat within 2 miles of a lek.	TL – March 1 to June 15 in sage grouse nesting habitat within 3 miles of a lek.
Big Game Parturition	TL – from April 1 to June 15 within established spring calving range for elk.	TL – from April 1 to July 1 within established big game parturition habitat.	CSU – within big game parturition habitat.	TL – April 1 to July 1 within established big game parturition habitat CSU – within big game parturition habitat.

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
Big Game Winter Range	TL –December 1 to March 31 within big game winter range to avoid disturbance of white-tailed deer, mule deer, elk, pronghorn antelope, moose, and bighorn sheep during the winter use season.	TL – December 1 to March 31 within big game winter range.	TL – December 1 to March 31 within big game winter range to avoid disturbance of white-tailed deer, mule deer, elk, pronghorn antelope, moose, and bighorn sheep during the winter use season.	TL – December 1 to March 31 within big game winter range.
Big Game Winter Range *(continued)*		CSU – The following special operating constraints apply in big game winter habitat: surface occupancy and surface disturbance density and / or mitigation plan.		CSU – The following special operating constraints apply in big game winter habitat: surface occupancy and surface disturbance density and / or mitigation plan. CSU - Within big game winter range habitat (Maps 15-20), the proponent would be required to conduct big game inventories in the project area prior to conducting any operations. If big game concentrations are found, the following CSU constraint would apply to maintain the habitat, avoid habitat loss and minimize disturbance: surface occupancy and surface disturbance density and / or mitigation plan.
Bighorn Sheep Habitat	NSO – designated bighorn sheep range	NSO – designated bighorn sheep range	CSU – bighorn sheep habitat	NSO – designated bighorn sheep range CSU - Prior to surface occupancy or use within bighorn sheep range, a plan to maintain bighorn sheep habitat would be prepared by the proponent and implemented upon approval by the authorized officer.

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
Raptor Nests (SSS other than those listed below; currently applies to Burrowing Owl, Swainson's Hawk, Northern Goshawk)	TL – March 1 to August 1 within ½ mile of raptor nest sites which have been active the past 2 years.	NSO – within ½ mile of raptor nest sites which have been active in the past 7 years	NSO – within ½ mile of raptor nest sites which have been active in the past 7 years.	TL – March 1 to August 1 within ½ mile of raptor nest sites which have been active the past 7 years. NSO - within ½ mile of raptor nest sites which have been active in the past 7 years.
Sharp-tail Grouse Leks	NSO – within ¼ mile of sharp-tail grouse leks.	NSO – within 2 miles of sharp-tailed grouse leks.	CSU – within ¼ mile of sharp-tailed grouse lek sites and nesting habitats.	NSO – 1/4 mile of sharp-tailed grouse leks
Sharp-tail Grouse Nesting Zone	TL – March 1 to June 15 in sharp-tailed grouse nesting habitat within 2 miles of a lek.	NSO – within 2 miles of sharp-tailed grouse leks.	TL – March 1 to June 15 in sharp-tailed grouse nesting habitat within ½ mile of a lek.	TL – March 1 to June 15 in sharp-tailed grouse nesting habitat within ½ miles of a lek.
General T&E Species	CSU	CSU	CSU	CSU
Fisheries	NSO – within ¼ mile of designated reservoirs with fisheries.	NSO – within ½ mile of designated reservoirs with fisheries.	NSO – within ¼ mile of designated reservoirs with fisheries.	NSO – within ¼ mile of designated reservoirs with fisheries.
	NSO – within riparian areas or wetlands; within 100 year flood plains of major rivers and on water bodies and streams.	NSO –within ¼ mile of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	NSO – within riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	NSO – within 300 feet of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.
	No similar action	NSO – within ½ mile of Blue and Red Ribbon streams, YCT populations and YCT suitable habitat.	NSO – within ¼ mile of Class I (Blue Ribbon) streams, and YCT populations.	NSO – within ½ mile of Class I (Blue Ribbon) streams, and YCT populations.
SRMAs	NSO – developed recreation areas and areas receiving high concentrated use.	NSO – SRMAs: • Sundance Lodge Recreation Area -Four Dances Natural Area ACEC • Shepherd Ah-Nei Recreation Area --Acton Recreation Area	CSU – in developed recreation areas and SRMAs.	NSO – SRMAs: • Sundance Lodge Recreation Area • Four Dances Natural Area ACEC • Shepherd Ah-Nei Recreation Area

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
		• Bundy Island • South Hills TMA • Pryor Mountain TMA		• Acton Recreation Area • Yellowstone River Corridor: 1/2 mile corridor
	No similar action		No similar action	CSU – SRMAs: • Asparagus Point • Pryor Mountain TMA • Horse thief TMA • South Hills TMA
Cultural & Paleontological Resources				
Cultural Resources	NSO – The following sites include a small buffer zone for protection from oil and gas actions: • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Young's Point • Bighorn Mouth North Cliffs Rock Art Site • Gyp Springs Site • Hoskins Basin Archaeological District	NL – • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Bighorn Mouth North Cliffs Rock Art Site • Gyp Springs Site • Hoskins Basin Archaeological District	NSO – on the following sites, districts, or areas: • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Bighorn Mouth North Cliffs Rock Art • Gyp Springs Site • Hoskins Basin Archaeological District • Bandit Site	NSO – on the following sites, districts, or areas: • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Bighorn Mouth North Cliffs Rock Art • Gyp Springs Site • Hoskins Basin Archaeological District • Bandit Site
	NSO – within sites or areas designated for conservation use, public use or socio-cultural use	NSO within sites or areas designated for conservation use, public use, scientific use, or traditional use.	NSO within eligible sites or areas designated for conservation use, public use, scientific use, or traditional use, including those areas determined to be traditional cultural properties and/or designated for traditional use.	NSO within eligible sites or areas designated for conservation use, public use, scientific use, or traditional use, including those areas determined to be traditional cultural properties and/or designated for traditional use

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
	No Similar Action	NSO ½ mile Bridger Cut-Off Trail Meeteetse Trail	CSU ¼ mile Bridger Cut-Off Trail Meeteetse Trail	CSU – ¼ mile Bridger Cut-Off Trail Meeteetse Trail
General Cultural Resources Stipulation	CSU	CSU	CSU	CSU
Paleontological Resources	The combination of Lease Stipulations and Lease Terms would mitigate impacts to paleontological resources on a case by case basis.	NSO – Surface occupancy and use is prohibited within designated or recorded paleontological sites.		
	The combination of Lease Stipulations and Lease Terms would mitigate impacts to paleontological resources on a case by case basis.	For oil and gas leasing, exploration, and development occurring within PFYC Class 3 or higher, a lease notice would be attached. Assessment, inventory, and/or mitigation would be required based on PFYC class.		
Visual Resources				
VRM II, III, & IV	CSU – VRM Class II	CSU – VRM Class II – IV	CSU – VRM Class II	CSU – VRM Class II – IV
Vegetation, Wetlands, and Water Quality				
Hydr-Rip-FLPL	NSO – Riparian Areas/Wetlands/Major Rivers/Water Bodies/Streams	NSO – within ¼ mile of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	NSO - within riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	NSO – within 300 feet of riparian areas and wetlands, designated 100 year flood plains and on water bodies and streams.
Sensitive Plant Species	No similar action	NSO – occupied special status plant sites.	CSU – inventory required prior to oil and gas leasing, exploration and/or development surface disturbing activities.	CSU – inventory required prior to oil and gas leasing, exploration and/or development surface disturbing activities.
Soils	CSU Slopes > 30%	NSO Slopes > 30%	CSU Slopes > 30%	CSU Slopes > 25%

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
Caves & Karst	No similar action	NL	CSU – Cave and Karst Areas	CSU – Cave and Karst Areas
Trails, Rivers, & Special Designations				
Lands with Wilderness Characteristics	Manage 1,925 acres (adjacent to Pryor Mountain and Big Horn Tack-On WSAs) as Lands with Wilderness Characteristics (no lease).	NL	NL	NL
Pompeys Pillar National Monument	NL	NL	NL	NL
Pompeys Pillar ACEC (Excluding the NM)	NSO	NL	NSO	NSO
Bridger Fossil Area ACEC	NL	NL	NSO (no WEMS)	NL
East Pryor ACEC	NL	NL. COAs for existing leases	NL	NL.
Four Dances Natural Area ACEC	NL	NL. COAs for existing leases	NL	NL
Grove Creek ACEC	SLT	NL. COAs for existing leases	NSO. COAs for existing leases	
Meeteetse Spires ACEC	NL (965 acres)			
Petroglyph Canyon ACEC	NL		NSO	NL
Pryor Foothills Research Natural Area	SLT	NL	NSO – known plant sites. Inventory prior to surface disturbing activities (CSU).	NSO – ¼ mile buffer known plant sites. Inventory prior to surface disturbing activities (CSU).

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Resource	Alt A (No Action Alternative)	Alt B	Alt C	Alt D (Preferred Alternative)
(RNA) ACEC				
Stark Site ACEC	NSO	NSO	NSO	NSO
Weatherman Draw ACEC	NSO with no WEMs.	NL	NSO (No WEMS)	NL (4,986 acres). NSO (7,291 acres) (No WEMS)
Greater Sage-Grouse Habitat ACEC	No ACEC Designation See page 2-44 (Greater Sage Grouse – Protection Priority Areas (PPAs) for Habitat) for lease terms and stipulations by alternative	NL – Closed to future oil and gas leasing, exploration and/or development	No ACEC Designation See page 2-44 (Greater Sage Grouse – Protection Priority Areas (PPAs) for Habitat) for lease terms and stipulations by alternative	No ACEC Designation See page 2-44 (Greater Sage Grouse – Protection Priority Areas (PPAs) for Habitat) for lease terms and stipulations by alternative
National Historic Trails	No similar action	NSO – within ½ mile of the L&C and NP NHTs.	CSU – within ½ mile of the L&C and NP NHTs with stipulations.	NSO – within ½ mile of the L&C and NP NHTs.
Wild and Scenic Rivers	No similar action	NL – WSR-suitable segments.	NSO – within ¼ mile of WSR- eligible.	NSO – within ½ mile of WSR-eligible and suitable segments.
Pryor Mountain Wild Horse Range	NL			
Wilderness Study Areas	NL			

Note:

a. Refer to Recommended COAs for Existing Leases in Appendix H

Table 2-6 Detailed Table of Alternatives

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Air				
Air quality goals are to ensure authorizations and management activities comply with local, state, and federal air quality regulations and requirements, including compliance with the National Ambient Air Quality Standards (NAAQS) and under the Clean Air Act (amended 1990), the Montana Ambient Air Quality Standards (MAAQS), and the Wyoming Ambient Air Quality Standards (WAAQS). The BLM authorized activities would also be managed to reduce air quality and climate change impacts by incorporating management actions to reduce emissions of criteria pollutants and hazardous air pollutants.				
Air – Desired Outcomes (Goals and Objectives)				
• Ensure authorizations and management activities comply with local, state, and federal air quality regulations and requirements. • Manage BLM authorized activities to maintain compliance with the NAAQS, MAAQS, and the Montana State Implementation Plan. • Reduce air quality and air quality related value (AQRV) impacts, including visibility and acid deposition, by including technically and economically feasible management actions to reduce emissions of criteria and hazardous air pollutants.				
Air – Management Common to All Alternatives				
	The BLM authorized activities would impose requirements to reduce fugitive dust emissions from construction activities and sites with surface disturbance.			
	The BLM authorized activities would impose requirements to reduce fugitive dust emissions from travel on high-traffic unpaved roads.			
	The BLM authorized activities would impose engine and stationary source emission control requirements needed to ensure compliance with NAAQS, MAAQS, WAAQS, and the Montana SIP.			
	If unacceptable air quality or AQRV degradation trends are identified and are determined to be caused by BLM authorized activities, additional emission control would be included in the BLM authorized activities.			
	The BLM would coordinate smoke management with the Montana-Idaho Airshed Management Group, the Montana Department of Environmental Quality (MDEQ), and the Yellowstone County Air Quality Unit in Yellowstone County.			
	Management of the non-attainment area(s) within the planning area would continue to be the responsibility of the State of Montana (Map 4).			
Climate Change				
The BLM goals and objectives for addressing climate change within the Billings Field Office are to reduce GHG emissions and to manage diverse, healthy landscapes to be resilient to stresses, including climate change, and incorporate adaptive, flexible management actions to adjust to changing climatic conditions. Adapting management, to reflect emerging science, projections, and impacts of climate change, allows the BLM to adjust management to best meet the challenges of climate change and is useful for complex processes and where potential impacts are large and could affect multiple resources. Adaptive management strategies are iterative processes where monitoring and assessment refine management. This document is based on current scientific knowledge and understanding, which in the case of climate change, is still emerging. Adaptive management provides for new information to be evaluated and incorporated into project level management decisions, BMPs, mitigation and the decision-making process.				
Climate Change – Desired Outcomes (Goals and Objectives)				
• For oil and gas activities, reduce GHG emissions on a unit-production basis.				

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
• Evaluate the observed and anticipated ling-term dynamic of climate change and reduce GHG emissions form project when feasible. • Provide for diverse, healthy ecosystems that are resilient to stressors, such as climate change. • Provide for flexible, adaptable management that allows for timely responses to changing climatic conditions. • Maintain or improve the ability of the BLM lands to reduce (sequester) atmosphere GHGs.				
Climate Change – Management Common to All Alternatives				
	Promote vegetative capture and storage of carbon, with consideration for resource objectives, by using Rangeland Standards and Montana Forestry/Rangeland BMP guidelines at the project planning and implementation level.			
	Identify opportunities for geophysical carbon sequestration on federal lands where federal mineral ownership exists as outlined in national guidance.			
	The BLM authorized activities would consider the use of BMPs to reduce emissions of GHGs.			
	Priority would be placed on actions such as: enhanced energy efficiency, use of lower GHG-emitting technologies, or renewable energy, planning for carbon capture and sequestration, and the capture or beneficial use of fugitive methane emissions.			
	Adjust the timing of BLM-authorized activities as needed to accommodate long-term changes in seasonal weather patterns, while considering the impacts to other resources and resource uses.			
Soil				
The BLM goals for the management of soil resources within the Billings Field Office are to maintain or improve overall soil health and productivity. To accomplish this, the Billings Field Office proposes to implement a variety of management activities that review and/or restrict various land and resource uses that have the potential to inhibit soil health and watershed stability. Actions specific to soil resource uses are listed below, by alternative and are primarily focused on the severity of the slope where land use authorizations may occur, cross referenced by the known soil characteristics that occur on any given site. It is important to note that the overall goal of watershed health is directly related to the health of soils and there are many management actions under other resource areas that are designated to benefit soil resources (grazing management, vegetation management, forestry, etc.). Those actions listed below under the "Management Common to All Alternatives" form the basis for the soils management program. Those individual management actions within the various alternatives consider different levels of restrictions that may impact other resource uses.				
Soil – Desired Outcomes (Goals and Objectives)				
• Maintain or improve soil health and productivity (e.g., chemical, physical, and biotic properties) by implementing Standards for Rangeland Health and other soil protection measures. • Minimize accelerated soil erosion and compaction and maintain surface soil water infiltration based on site specific conditions. • Manage BLM-authorized activities to minimize soil mass movement (primarily from accelerated water/wind erosion) resulting from fire, above-ground disturbances, and accelerated stream bank erosion. • Manage soil resources to: ▶ Prevent or minimize accelerated soil erosion ▶ Prevent or minimize flood and sediment damage, as needed ▶ Establish desirable plant communities, maintain existing desirable vegetative ground cover composition consistent with the ecological site characteristics, and sustain other ground cover including biotic crusts and litter to increase or maintain surface soil stability and nutrient cycling. ▶ Manage BLM-authorized activities to minimize sediment delivery to creeks, streams, and standing bodies of water (lakes, ponds, reservoirs, etc.).				

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Soil – Management Common to All Alternatives				
	BLM-authorized surface-disturbing activities would include plans for reclamation. Site-specific reclamation actions should reflect the complexity of the project, environmental concerns, and the reclamation potential of the site, giving consideration to soils susceptible to erosion and compaction when assessing projects.			
	The Standards for Rangeland Health would be used to assess compaction and erosion issues.			
	Respond in a timely manner to assess soil and mitigate potential soil damage after wildland or prescribed fire, in accordance with BLM Emergency Stabilization and Rehabilitation standards.			
	Identify opportunities to construct water flow, sediment control and watershed stabilization projects in partnership with local, state, and federal programs.			
Soil – Management Actions by Alternative				
	No current management decision provided.	Authorization would not be allowed in areas where erosion would not be effectively controlled or mitigated.	Authorization would be allowed in areas where erosion would be effectively controlled or mitigated with a BLM-approved design plan.	Same as C.
Soil – Management Actions by Alternative (continued)				
	Mitigate impacts of logging by prohibiting wheeled or tracked equipment operation on sustained slopes greater than 35% and re-seeding of grasses and forbs on skid trails, landings, and roads.	Surface disturbing activities would not be allowed on fragile soils with, steep slopes >30%, and soils with low reclamation potential and highly erodible characteristics. Use Rangeland Health Standards and BMPs to assess and mitigate disturbance of soils (e.g., erosion, re-vegetation, fiber mats and other restoration measures, etc.).	Surface disturbing activities would not be allowed on soils with slopes >45% or fragile soils with low reclamation potential and highly erodible characteristics Use Rangeland Health Standards and BMPs to assess and mitigate disturbance of soils (e.g., erosion, re-vegetation, fiber mats and other restoration measures, etc.).	Surface disturbance on slopes >25%, soils with low reclamation potential, and highly erodible characteristics would be avoided whenever possible. If disturbance could not be avoided an approved mitigation and reclamation plan would be required prior to activities taking place. Use Rangeland Health Standards and BMPs to assess and mitigate disturbance of soils (e.g., erosion, re-vegetation, fiber mats and other restoration measures, etc.).
	Mitigate impacts on slopes >30% for oil and gas leasing and development (CSU)	No surface occupancy on slopes >30% for oil and gas development and leasing (NSO).	Same as A	Mitigate impacts on slopes >25% for oil and gas leasing and development (CSU)
	No current management decision provided	Require engineering design, geologic analysis, and mitigation planning when considering activities in areas that are prone to slumping or instability.	Use BMPs and Rangeland Health Standards at the project level to assess and mitigate impacts to fragile and unstable soils prone to slumping.	Same as Alternative C.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Water				
The BLM goals for water resources are primarily driven by compliance with applicable federal and state water quality standards, aiming to protect water quality for municipal, residential, industrial, agricultural, recreational, and resource benefit while providing multiple use opportunities for public lands. The actions listed below focus on restrictions to BLM authorized activities to protect water quality by maintaining or restoring the chemical, physical, and biological integrity of water resources. These proposed actions accomplish this goal through promoting proper drainage and watershed health by maintaining riparian functionality and minimizing surface disturbance to deter excessive erosion and maintain stream channel and upland morphological conditions that can fully support beneficial uses. Cooperating with MT DEQ to develop and monitor TMDL plans is an essential action necessary to maintain or improve water quality, stipulated by the Clean Water Act. The "Management Common to All Alternatives" section is the baseline of actions used to meet the described goals, while the actions specific to each alternative offer various degrees of protection that may impact other resource uses. The impacts to other resources are analyzed in Chapter 4 of this document.				
Water – Desired Outcomes (Goals and Objectives)				
• Maintain and/or improve surface water and groundwater resources, maintain compliance with applicable federal and state water quality standards, and improve water quality where practical within the scope of the BLM's authority • Restore and/or maintain the chemical, physical, and biological integrity of water resources to protect designated beneficial uses and achieve water quality standards. • Minimize erosion and subsequent sedimentation for improved stream and watershed health • Maintain or improve morphological conditions to a stable state that can fully support beneficial uses • Protect water quality for municipal, industrial, agricultural, recreation, and residential purposes by adopting protective measures to meet federal, tribal, state, and local water quality requirements • Floodplains are properly functioning allowing for aquifer recharge, wildlife habitat, and flood water retention (Map 8) • Stream channel conditions are representative of the site capacity and dimension and moderate flows to allow floodplain aquifer recharge and safeguard floodplains • Secure and protect water rights for beneficial uses on the BLM administered lands to ensure water availability to the BLM authorized uses and programs				
Water – Management Common to All Alternatives				
	BLM would participate in the development, implementation, and monitoring of water quality restoration plans/TMDL plans.			
	Use Rangeland Health guidelines and other management strategies to meet the Standards for Rangeland Health (Standards 2, 9 &12).			
	Use BMPs and other practical management strategies to meet water quality standards set forth in rules/laws of federal, tribal, state, and local agencies.			
	Acquire in-stream water rights where appropriate, to ensure water availability for multiple-use management and proper functioning riparian and upland areas.			
	Cooperate with Montana State DEQ and local communities to implement Source Water Protection Programs (SWPPs) and preserve source water.			
Water – Management Actions by Alternative				
		Mitigation of surface-disturbing activities would be applied where needed to minimize impacts of human activities on riparian, water and floodplain resources, consistent with the stipulations identified for oil and gas development in this section. Mitigation measures would be applied during activity level planning if an on-site evaluation of the project area indicates the presence of these resources. Exceptions may be granted by the authorized officer, if an environmental review demonstrates that effects could be mitigated to an acceptable level or portions of the area can be occupied without affecting a particular habitat. Exceptions may also be granted where the short-term effects are		

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		mitigated by the long-term benefits (e.g., prescribed fire, wildlife monitoring, forest health treatments, and habitat restoration). As defined in the Glossary, surface-disturbing and disruptive activities would not prohibit all activities or authorized uses. For example, emergency activities (e.g., fire suppression, search and rescue), rangeland monitoring, routine maintenance associated with an approved authorization, dispersed recreational activities (e.g., hunting, hiking), and livestock grazing are not considered surface-disturbing or disruptive activities.		
	Stabilize watershed conditions where grazing management or range condition is contributing to excessive erosion. Use Rangeland Health Standards and Guidelines and BMPs to assess and mitigate impacts in areas where grazing or range condition is contributing to excessive erosion.	Restrict or limit BLM-authorized activities that contribute to deteriorating watershed conditions and/or excessive erosion.	Same as Alternative A	Restrict or limit BLM-authorized activities that contribute to deteriorating watershed conditions and/or excessive erosion. Use Rangeland Health Standards and Guidelines and BMPs to mitigate impacts from activities that are contributing to excessive erosion.
	No current management decision provided.	Close and reclaim roads where runoff contributes to accelerated decline in water quality and/or habitat.	Seasonally close roads where runoff contributes to accelerated decline in water quality and/or habitat.	Monitor route conditions and temporarily/permanently close roads and/or apply mitigation measures where runoff contributes to accelerated decline in water quality and/or habitat, and/or reclaim.
	Any allowed discharge of oil and gas-produced water from point sources from public lands would be in compliance with Montana DEQ requirements.	Prohibit disposal of new surface discharge of oil and gas produced water into streams or other flow-connected surface features on BLM-administered land.	Avoid the discharge of oil and gas-produced water from point sources to public lands, including stream channels and uplands, as a means of disposal. Any allowed discharge would be in compliance with Montana DEQ requirements.	Same as Alternative C
	Oil and gas leasing and development would only be allowed with an NSO stipulation on riparian areas, wetlands, water bodies, and 100-year flood plains of major rivers.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ¼ mile of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within 300 feet of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Vegetation: Forests and Woodlands				
The BLM would manage the public forests and woodlands to maintain and enhance the health, productivity, and biological diversity of these ecosystems. A balance of natural resource benefits would be provided to present and future generations. The management of forest and woodland resources would be consistent with the principles of multiple use and sustained yield. The Federal Land Policy and Management Act of 1976 (FLPMA) directs the BLM to prepare interdisciplinary land use plans based on the principles of multiple-use and sustained yield. The ecosystem management concept is at the core of FLPMA and the basis for all forestry activities in the BLM. All forest management actions would meet or exceed the Montana Streamside Management Zone (SMZ) law and Water Quality Best Management Practices for Montana Forests (BMPs) to ensure the protection of soil, water, riparian, and fisheries resources. The BLM's forestry program promotes forest and woodland communities that are healthy, resilient, and vigorous. Forestland mosaics are managed for a diversity of stand structures and species components that complement other resource values, including but not limited to recreation, wildlife, rangelands, fisheries, and wood fiber production.				
Vegetation: Forests and Woodlands – Desired Outcomes (Goals and Objectives)				
• Restore and/or maintain the health and productivity of public forests and woodlands to provide a balance of forest and woodland resource benefits to current and future generations. • Manage forests and woodlands, considering factors such as species, density, canopy cover, age class, and stand health and understory components, to restore vitality, health, and diversity. • Promote forest vegetation recovery on forested lands after wildfire events. • Use fire and fuels treatments as an integrated approach to meet forest health objectives. • Return forests toward a more natural forest condition class and fire regime by implementing treatments that move forest conditions toward Fire Regime Condition Class I (FRCC1). • Natural disturbance regimes would be maintained or mimicked so that plant communities are resilient to climate change and periodic outbreaks of insects, disease, and wildfire. • Manage quaking aspen stands to promote vigor and resilience and to promote expansion of its current range. • Manage coniferous and deciduous forests to promote vigor and resilience. • Manage forests and woodlands to meet or exceed the standards identified in BLM's Standards for Rangeland Health (Standards 1 and 5)				
Vegetation: Forests and Woodlands – Management Common to All Alternatives				
	An inventory and health assessment of forested stands within the planning area would be completed during the life of the plan.			
	Monitor forest health indicators, including populations of insects, and apply forest management methods which promote the appropriate level of stocking and function based on the forest type.			
	Manage vegetation structure, density, species composition, patch size, pattern, and distribution in a manner which reduces the occurrence of unnaturally large and severe wildfires and forest insect/disease outbreaks. The amount of vegetation to be treated may vary and would be based on inventory and monitoring to meet desired objectives.			
	Treat stands at risk of catastrophic wildfire and epidemic levels of forest insects and/or disease as a high priority.			
	Conduct forest and woodland health management activities using a prescription based on the best available science. At a minimum, prescriptions would require a description of current stand conditions and desired future conditions.			
	Forest management would emphasize forest structures with large trees appropriate to the forest type, snag recruitment, and large diameter trees for cavity nesters where appropriate.			
	Use adaptive management strategies that address climate change in order to maintain or enhance forest and woodland ecosystems			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Vegetation: Forests and Woodlands – Management Actions by Alternative				
	Mechanical harvest (e.g. soil disturbing activities) limited to slopes < 35%, but line or helicopter operations allowed on slopes > 35%. Would allow operations on approx. 68% of forested acres not restricted by WSAs or ACECs.	Wheeled and tracked vehicle operation would not be allowed on sustained slopes greater than 30%. Would allow operations on approx. 60% of forested acres not restricted by WSAs or ACECs. Mechanical harvest (e.g. soil disturbing activities) limited on slopes > 30%, but line or helicopter operations allowed.	Wheeled and tracked vehicle operation would not be allowed on sustained slopes greater than 45%. Would allow operations on approx. 79% of forested acres not restricted by WSAs or ACECs. Mechanical harvest (e.g. soil disturbing activities) limited on slopes > 45%, but line or helicopter operations allowed.	Wheeled and tracked vehicle operation would be avoided on sustained slopes greater than 25% whenever possible. If operations could not be avoided, an approved mitigation and reclamation plan would be required prior to activities taking place. Would allow operations on approx. 60% of forested acres not restricted by WSAs or ACECs. Mechanical harvest (e.g. soil disturbing activities) limited on slopes > 25% without an approved mitigation and reclamation plan in place, but line or helicopter operations allowed.
	No current management decision provided.	Emphasis would be placed on retention and acquisition of forested lands. Disposal, retention, or acquisition of forested lands would consider the values of the forest type, habitat diversity, and potential for carbon sequestration.	Dispose of isolated forested lands where appropriate land/resource values are considered.	Same as Alternative B.
	9,500 acres of forested land would be protected from cutting, except where needed for other resource values. Protective areas include Pryor Mountain WSA, Bighorn Tack-On WSA, Burnt Timber WSA, Bad Canyon, Young's Point, Asparagus Point, Shepherd Ah-Nei and Acton.	Same as Alternative A.	Cutting for density management, forest health, and fuels management would be allowed unless otherwise restricted (e.g., WSAs, ACECs, etc.). Removal of large trees would be allowed on forested lands consistent with wildlife requirements and other resources values.	Cutting for density management, forest health, and fuels management would be allowed unless otherwise restricted (e.g., WSAs, ACECs, etc.). Large trees would be retained in numbers and species as appropriate for the forest type and successional stage, consistent with wildlife requirements and other resource values.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Vegetation: Rangelands				
The goal of the vegetation management program is to manage vegetative resources that maintain a diversity of ecological conditions while providing for a variety of multiple uses that are based on sound biological principles and the best available science. The BLM partners with other natural resource management agencies to provide sound ecological management of rangeland resources, implementing a variety of management actions that regulate resource uses or activities that have the potential to degrade or enhance rangeland habitats. The actions specific to vegetation resource management are listed below, by alternative. These actions primarily focus on varying degrees of ground disturbance in sagebrush dominated communities and crested wheatgrass monocultures. These actions would guide the authorization of BLM activities, ensuring the maintenance or enhancement of rangelands resources. Actions under "Management Common to All Alternatives", sets the basis for vegetation management, while those actions in various alternatives provides a range of levels of manipulation that may impact other resource uses. Some actions associated with other resources (soils, water, wildlife, vegetative communities, etc.) benefit rangeland resources by concentrating on rangeland health. "Rangeland Health" is the minimum ecological standard, independent of the rangeland's use and how it is managed. If rangeland health is protected, a variety of uses could be appropriate for any particular rangeland. For more information on rangeland health standards, see Appendix I.				
Vegetation: Rangelands – Desired Outcomes (Goals and Objectives)				
• Manage vegetative resources to maintain a diversity of ecological conditions on rangelands while providing for a variety of multiple uses that are economically feasible, and based on sound biological principles and the best available science. • Manage vegetative communities to restore, maintain or enhance vegetation community health, habitat, composition and diversity to provide a mix of successional stages that incorporate diverse structure and composition in the desired vegetation types. • Maintain, improve, enhance, or restore habitat to facilitate the conservation, recovery, and maintenance of populations of native and desirable nonnative plant and animal species. • Promote recovery and restoration of sagebrush communities after wildfire events.			
Vegetation: Rangelands – Management Common to All Alternatives				
	Manage rangelands to meet health standards consistent with the Standards for Rangeland Health (Standards 1 and 5) and Guidelines for Livestock Grazing Management and apply appropriate guidelines where not meeting the standards.			
	Within sage-grouse priority protection areas, only treatments that conserve, enhance, or restore Greater Sage-grouse habitat would be allowed. Treatment methods, including prescribed burning and mechanical treatments would be used to eliminate conifer encroachment and stimulate vegetative re-growth in grassland/shrub land habitats; and to reduce fuels, thin under-stories, recycle nutrients, and create small openings in forested vegetation types.			
	Identify and maintain areas containing high quality native vegetation for use as seed collection sites.			
	Identify priority treatment areas for conifer encroachment, including big game winter range, WUIs, current and historic sagebrush habitat, forest meadows and bighorn sheep habitat.			
	To manage cheatgrass and annual bromes, use the best available vegetation treatments, including but not limited to early spring grazing, prescribed fire, interim farming practices, and herbicide use.			
	Native seed would be used for all restoration and rehabilitation efforts unless site specific objectives dictate otherwise.			
Vegetation: Rangelands – Management Actions by Alternative				
	Prescribed fire/treatment on 6,418 acres of sagebrush for forage enhancement.	Prescribed fire would not be allowed in sagebrush communities. Wildfires would be suppressed in sagebrush communities.	A variety of treatment methods, including mechanical, chemical, biological and prescribed fire (including wildfire), would be used if the treatment would achieve a diversity of habitat	Same as C.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
			components within sagebrush communities.	
	Crested wheatgrass (160 acres) would be hayed or mechanically treated to increase forage production, improve range conditions, and reduce erosion.	Fifteen percent of crested wheatgrass acres would be converted to native sagebrush/ grassland over the life of the plan. Preferred treatment areas would be areas that are not currently being used in a grazing system to provide early spring grazing and reduce grazing pressure from other areas within a grazing allotment. Priority treatment areas would be in sage-grouse PPAs, RAs and general habitat.	Five percent of crested wheatgrass acres in high density sage grouse population areas would be converted to native sagebrush/grassland over the life of the plan. Preferred treatment areas would be areas that are not currently being used in a grazing system to provide early spring grazing and reduce grazing pressure from other areas within a grazing allotment. Priority treatment areas would be in sage-grouse PPAs, RAs and general habitat.	Eight percent of crested wheatgrass acres would be converted to native sagebrush/grassland over the life of the plan. Preferred treatment areas would be areas that are not currently being used in a grazing system to provide early spring grazing and reduce grazing pressure from other areas within a grazing allotment. Priority treatment areas would be in sage-grouse PPAs, RAs and general habitat.
Vegetation: Riparian and Wetlands				
The BLM goals for the management of riparian areas within the Billings Field Office decision area center on promoting healthy wetland ecosystems, supporting physical processes and natural combinations of vegetation that work together to create stable stream banks, functional floodplains, complex fish and wildlife habitat and high water quality within site potential. Management actions ensure consistency with achieving or maintaining the Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Montana, North Dakota, and South Dakota (BLM 1997a) and as a minimum, all riparian areas with natural capability would be in proper functioning condition (PFC). The PFC is a method for assessing the condition of riparian wetland areas through a consistent approach, considering hydrology, vegetation, and erosion/deposition attributes and processes. The term PFC refers to how well the physical processes of the riparian area are functioning. In addition, Desired Future Conditions (DFCs) would be developed in some alternatives to help enhance riparian conditions beyond PFC. The DFCs can include, but are not limited to, riparian characteristics such as native species diversity and abundance, important in enhancing fish and wildlife habitat as well as riparian functionality.				
Vegetation: Riparian and Wetlands – Desired Outcomes (Goals and Objectives)				
• Riparian and wetland areas would be managed to promote healthy wetland ecosystems, supporting physical processes and natural combinations of vegetation that work together to create stable stream banks, functional floodplains, complex fish and wildlife habitat and high water quality within site potential. • Riparian vegetation would be managed to achieve or sustain desired future conditions (DFCs). The DFCs would be developed by an interdisciplinary team, giving consideration to restoring and/or promoting natural communities and complex riparian conditions valuable to water quality and wildlife habitat. • Invasive species management would focus on restoring native and desired non-native communities to riparian areas to attain DFCs.				
Vegetation: Riparian and Wetlands – Management Common to All Alternatives				
	Forest treatments would comply with the Montana Streamside Management Zone law to protect riparian resources.			
	Manage riparian communities to meet Standards for Rangeland Health (Standard 2) to ensure riparian areas and wetlands are in Proper Functioning Condition (PFC).			
Vegetation: Riparian and Wetlands – Management Actions by Alternative				
	No current management decision provided.	Mitigation of surface-disturbing activities would be applied where needed to minimize impacts of human activities on riparian, water and		

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		floodplain resources, consistent with the stipulations identified for oil and gas development in this section. Mitigation measures would be applied during activity level planning if an on-site evaluation of the project area indicates the presence of these resources. Exceptions may be granted by the authorized officer, if an environmental review demonstrates that effects could be mitigated to an acceptable level or portions of the area can be occupied without affecting a particular habitat. Exceptions may also be granted where the short-term effects are mitigated by the long-term benefits (e.g., prescribed fire, wildlife monitoring, forest health treatments, and habitat restoration). As defined in the Glossary, surface-disturbing and disruptive activities would not prohibit all activities or authorized uses. For example, emergency activities (e.g., fire suppression, search and rescue), rangeland monitoring, routine maintenance associated with an approved authorization, dispersed recreational activities (e.g., hunting, hiking), and livestock grazing are not considered surface-disturbing or disruptive activities.		
	No current management decision provided	Riparian areas would be monitored on a prioritized basis. High priority areas would include: • Riparian areas adjacent to fish bearing waters. • Riparian areas with existing cottonwood galleries or potential cottonwood gallery habitat • Riparian areas within Greater Sage-Grouse Priority Habitat	Riparian areas would be monitored with a scheduled rotation or when needed for grazing permit renewals.	Same as B.
	No current management decision provided	Riparian areas would be managed towards Desired Future Conditions. Desired Future Conditions would be established based on individual resources, as identified.	Riparian areas would be managed to meet rangeland health standards (properly functioning condition).	High priority riparian areas would be managed towards Desired Future Conditions. Other riparian areas would be managed to meet rangeland health standards (properly functioning condition), unless other Desired Future Conditions are appropriate.
	Oil and gas leasing and development would only be allowed with an NSO stipulation on riparian areas or wetlands. NSO within 100 year flood plains of major rivers and on water bodies and streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ¼ mile of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within 300 feet of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	NSO for oil and gas leasing and development and geophysical exploration within ¼ mile of designated reservoirs with fisheries.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ½ mile of designated reservoirs with fisheries.	Same as A	Same as A
	No current management decision provided	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ½ mile of Blue and Red Ribbon streams, and YCT populations and YCT suitable habitat (Maps 26-28).	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ¼ mile of Blue Ribbon streams, and YCT populations (Maps 26, 27).	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ½ mile of Blue Ribbon streams, and YCT populations (Maps 26, 27).
Vegetation: Invasive Species and Noxious Weeds				
The BLM goals for the management of invasive species and noxious weeds within the Billings Field Office are to manage for healthy native plant communities by reducing, preventing expansion of, or eliminating the occurrence of undesirable invasive, nonnative species, or noxious weeds (predatory plant pests or disease) by implementing management actions consistent with national guidance, state and local weed management plans and best available science. Integrated Pest Management would be implemented to move toward a healthy plant community, while meeting multiple land use objectives. The BLM would control invasive and non-native weed species and prevent the introduction of new invasive species, including aquatic nuisance species, by implementing a comprehensive weed program including: coordination with key partners, prevention and early detection, education, inventory and monitoring, and using principles of Integrated Pest Management (IPM) and creating weed management areas (WMAs). The actions specific to the management of invasive and noxious weeds are listed below, by alternative. These "Action Alternatives" would primarily protect people, water, fish, wildlife, special status species and their habitats, prevent the introduction and spread of invasive and noxious weeds. Some actions associated with other resources (soils, water, fish and wildlife etc.) benefit the management of invasive and noxious weed program by limiting activities that would reduce soil and vegetation disturbance and reduce the spread and introduction of invasive and noxious weeds.			
Vegetation: Invasive Species and Noxious Weeds – Desired Outcomes (Goals and Objectives)				
• Manage for healthy native plant communities and desirable nonnative plant communities by reducing, preventing expansion of, or eliminating the occurrence of undesirable invasive species, undesirable nonnative, or noxious weeds (predatory plant pests or disease) by implementing management actions consistent with national guidance, state and local weed management plans. • Use Integrated Pest Management to make progress towards a healthy plant community, while meeting multiple land use objectives and meeting Standards for Rangeland Health (Standards 1, 2, and 5). • Maintain baseline data to evaluate effectiveness of management actions and assess progress toward meeting invasive species management goals/objectives. • Create buffer zones to protect and/or restore fish and wildlife habitat and neighboring agricultural fields. • Control invasive and non-native weed species and prevent the introduction of new invasive species, including aquatic nuisance species, by implementing a comprehensive weed program including: coordination with key partners, prevention and early detection, education, inventory and monitoring, and using principles of Integrated Pest Management (IPM) and creating weed management areas (WMAs).			
Vegetation: Invasive Species and Noxious Weeds – Management Common to All Alternatives				
	Reclamation/stabilization and maintenance materials used would be from weed free seed source.			
	Invasive species, including aquatic invasives, would be managed in cooperation with other agencies, organizations, and landowners in accordance with EO 13112 (1999).			
	Biological control would be applied where appropriate and approved by APHIS. The BLM would consider adapting new or updated biological control techniques, as supported by research.			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Domestic sheep and goats used for weed control would only be authorized where mechanisms are in place to achieve effective separation from wild sheep.			
	Weed control using domestic sheep and/or goats in potential grizzly bear and wolf habitat would only be authorized after consultation with U.S. Fish Wildlife Services.			
	Visitor protection during herbicide treatments at developed recreation areas would include posting signs to prevent public entry. To the extent practical, herbicide treatments would occur only during low recreation use.			
	Require the use of certified weed free seed forage and feeds to prevent establishment of new weed species. Forage subject to this rule would include hay, grains, cubes, pelletized feeds, straw and mulch.			
	Require the use of weed free seed and mulch for BLM-authorized activities and projects.			
	Noxious/Invasive species treatments would be approved by the appropriate BLM specialist prior to treatment occurring			
	Stipulations would be attached to all surface disturbing projects for noxious/invasive species prevention, identification, and treatments, as well as monitoring during and after project.			
Vegetation: Invasive Species and Noxious Weeds – Management Common to Action Alternatives				
	No current management decision provided	Oil and gas leases would be inventoried for noxious and/or invasive weeds, monitoring would occur throughout the duration of the project to prevent the spread and introduction of noxious and/or invasive weeds, and project activities must be designed to minimize soil disturbance. (LN)		
	No current management decision provided	Oil and gas leases would be subject to constraints should noxious and/or invasive weeds be identified within the boundaries of the lease parcel (CSU).		
	No current management decision provided	When possible, hand spray herbicides in areas of special status species (plants and animals)		
	No current management decision provided	Noxious and invasive weed control would not occur within ½ mile of nesting and brood rearing areas for special status species during the nesting and brood rearing season		
	No current management decision provided	Treatment priorities would be established consistent with State of Montana Noxious Weed guidance. High Treatment Priority: eradication of new species; new infestations, areas of special concerns, riparian corridors or special status plant populations where there is a high threat to species of concern (such as Russian olive and salt cedar treatments); areas where partnership/cooperative agreements are in place; treatment and prevention in special designations and weed management areas. Moderate/Low Treatment Priority: areas that contain existing large infestations with a focus on boundaries of infestations, travel routes, trails, trailheads, and access points leading to areas of concern, control existing large infestations and suppression of existing large infestations when eradication/control or containment is likely not to be successful.		
Vegetation: Invasive Species and Noxious Weeds – Management Actions by Alternative				
	No current management decision provided	Remove invasive species from cottonwood galleries and take actions to maintain the appropriate stand composition, structure and understory diversity to promote the expansion	Natural processes would be allowed to determine structure and composition of cottonwood galleries (no proactive management).	Same as B

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		of galleries.		
	Aerial application of non-aquatic label herbicides would not be allowed within 100 feet of wetlands, riparian areas, and aquatic habitats. Specific buffer strip widths indicated on pesticide labels or by state regulations must be followed. This also applies to cropland and ornamentals Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.	Aerial application of non-aquatic label herbicides would not be allowed within ¼ mile of wetlands, riparian areas, and aquatic habitats. Specific buffer strip widths indicated on pesticide labels or by state regulations must be followed. This also applies to cropland and ornamentals Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.	Specific buffer strip widths indicated on pesticide labels or by state regulations would be followed. This also applies to cropland and ornamentals. Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.	Aerial application of non-aquatic label herbicides would not be allowed within 500 feet of wetlands, riparian areas, and aquatic habitats. Specific buffer strip widths indicated on pesticide labels or by state regulations must be followed. This also applies to cropland and ornamentals Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.
	Minimize treatments near fish-bearing and salmonid-bearing water bodies during periods when fish are in life stages most sensitive to the herbicide(s) used. Use only spot treatment methods.	Land base application methods would not be allowed within ¼ mile of fish-bearing water bodies during periods when fish are in life stages most sensitive to the herbicide(s) used.	Minimize treatments near fish-bearing and salmonid-bearing water bodies during periods when fish are in life stages most sensitive to the herbicide(s) used. Use only spot treatment methods. Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.	Land base application methods would not be allowed within 25 feet (by vehicle) or 10 feet (by hand) of fish-bearing water bodies during periods when fish are in life stages most sensitive to the herbicide(s) used. Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.
	Vehicle and hand application of herbicides would not be allowed within 25 feet (by vehicle) or 10 feet (by hand) of wetlands, riparian areas, aquatic habitats, dwellings and cropland. Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.	Vehicle and hand application of herbicides would not be allowed within 50 feet of wetlands, riparian areas, aquatic habitats, dwellings and cropland. Exceptions would be applied when managing riparian noxious/invasive species and following aquatic approved herbicide labels.	Same as A	Same as A
	Mix herbicides with non-aquatic label at a minimum of 500 feet away from riparian areas, water sources, floodplains, and known special status plant species populations.	Mix herbicides with non-aquatic label at a minimum of ¼ mile away from riparian areas, water sources, floodplains and known special status plant species populations.	Same as A	Same as A

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Vehicle and hand application of herbicides near special status plant species would be determined on a case-by-case basis and allowed only when the treatment would benefit special status plant species.	Aerial application of herbicides would not be allowed within 1mile of special status plant species. Vehicle and hand application of herbicides would not be allowed within ¼ mile of special status plant species.	Aerial application of herbicides would not be allowed within ½ mile of special status plant species. Vehicle and hand application of herbicides near special status plant species would be allowed only when the treatment would benefit special status plant species (to be determined during site-specific analysis).	Same as C
	Use native seed mixtures unless modified through NEPA.	Only native species appropriate to the site would be used to restore vegetation on disturbed ground.	Native or low impact, non-invasive seed mixtures would be used to restore vegetation on disturbed ground.	Native plant species common to the site's natural plant community would be used to restore disturbed ground. Introduced species would be considered based on site-specific analysis where difficult site stabilization or wildlife concerns prevail.
	In the past 10 years a combination of treatment methods (herbicide, manual, mechanical, sheep/goats, biological and fire) were used to treat 366 acres to 5,548 acres per year.	A minimum of 200 acres and at least a maximum of 800 acres of invasive and noxious weeds would be treated annually by BLM and cooperators through a variation of methods (herbicide, manual, mechanical, sheep/goats, biological and fire).	A minimum of 1,500 acres and at least a maximum of 3,000 acres of invasive and noxious weeds would be treated annually by BLM and cooperators through a variation of methods (herbicide, manual, mechanical, sheep/goats, biological and fire).	A minimum of 400 acres and at least a maximum of 2,000 acres of invasive and noxious weeds would be treated annually by BLM and cooperators through a variation of methods (herbicide, manual, mechanical, sheep/goats, biological and fire).
Vegetation: Special Status Plants				
The Bureau of Land Management goals for the management of Special Status Plants within the Billings Field Office are to conserve and recover Special Status Plant species and the ecosystems that they depend to prevent the need for listing as threatened or endangered. This includes protecting or enhancing areas of ecological importance for Special Status Plant species and managing for no net loss of habitat. The following Management Actions describe, by alternative, implementation strategies, restoration opportunities, and use restrictions to meet the goals. Management for specific environmental hazards, risks, and impacts that are compatible with Special Status Plant species are also identified by alternative.				
Vegetation: Special Status Plants – Desired Outcomes (Goals and Objectives)				
• Conserve and recover special status plant species and the ecosystems on which they depend to prevent the need to list any of these species as threatened or endangered. • Protect or enhance areas of ecological importance for special status plant species. Manage for no net loss of habitat for any special status plant species. • Conserve and recover special status plant species by determining and implementing strategies, restoration opportunities, use restrictions, and management actions. • Manage specific environmental hazards, risks, and impacts in a manner compatible with special status plant species health.				
Vegetation: Special Status Plants – Management Common to All Alternatives				
	BLM-authorized activities should maintain or improve habitat for Federally listed threatened, endangered, and special status plants.			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Conduct inventory and monitoring to determine extent and trend of special status plant populations.			
	Habitats of special status plants would be managed to meet or exceed the Montana Standard for Rangeland Health (Standard 5).			
	Increase public awareness of special status plants through outreach, tours, and brochures.			
	Consider the high public value of special status plants and their habitat in land exchanges, purchases or disposals in which public ownership of such habitat would be affected.			
Vegetation: Special Status Plants – Management Actions by Alternative				
	On-site examination is required prior to surface disturbing activities. Evaluate all BLM actions for potential effects on special status plants and conduct on-site inventory for species of concern prior to treatment.	Evaluate all BLM-authorized activities for potential effects on special status plants. Conduct on-site inventory for special status plants prior to any surface disturbance.	Evaluate all BLM-authorized activities on known special status plant sites for potential effects on special status plants.	Same as B, except only conduct on-site inventory if potential special status plant habitat is present.
	No current management decision provided	No surface occupancy for oil and gas leasing, exploration and/or development on occupied special status plant sites (NSO).	On-site examination would be required prior to oil and gas leasing, exploration and/or development surface disturbing activities (CSU).	Same as C
	Mineral Materials - No current management decision provided	No permitting of mineral materials would be authorized in special status plants sites.	Mineral material sales would be allowed through permit only with appropriate mitigation.	Mineral material sales would be allowed on a case-by-case basis by permit only. Mitigation may be required as appropriate.
	No current management decision provided	No supplement or salt placement within ½ mile of known special status plant sites.	No supplement or salt placement within ¼ mile of known special status plant sites.	No supplement or salt placement within ¼ mile of known special status plant sites, unless livestock is otherwise excluded (fence or barrier).
	Additional management actions, by alternative, related to Special Status Plants can be found under Special Designations - Areas of Critical Environmental Concern (ACECs) section under the East Pryor ACEC, Grove Creek ACEC, Meeteetse Spires ACEC, and Pryor Foothills Research Natural Area (RNA) ACEC.			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Wildlife Habitat and Special Status Species (Wildlife)				
The BLM, Billings Field Office's goals for wildlife are to manage terrestrial habitat to provide native and desirable non-native species diversity and viability, while considering multiple uses of public lands. The necessary habitat would be present to maintain, enhance, or restore T & E, priority, and special status species populations and habitat with "no net loss of habitat" as the goal. BLM would manage environmental risks and associated impacts in a manner compatible with sustaining plant, fish, wildlife, and special status species populations through restoration and building resilience to disturbance. Environmental risks include, but are not limited to, parasites, diseases, insect outbreaks, catastrophic fires, contamination, pesticides, rodenticides, herbicides, climate, and other hazards. Sagebrush, native grasslands, seasonal or crucial wildlife ranges, special status species habitat, fisheries, cottonwood galleries, and riparian/wetlands would be priority habitats. All wildlife habitats would be managed to meet Rangeland Health Standards (Standards 1 and 5). BLM is responsible for managing habitats, whereas state and federal wildlife management agencies (e.g., MFWP, USFWS) oversee management of wildlife species. BLM would coordinate with and support the conservation plans of those agencies on BLM administered lands. Priority wildlife species for management are described in Chapter 3. Those actions listed under the "Management Common to All Alternatives" form the basis for the wildlife management program. The "Management Actions by Alternative" consider different levels of restrictions that may impact other resource uses. The management activities proposed by BLM to accomplish the wildlife goals are described in the management actions by alternative. For analysis purposes, the alternatives describe how wildlife habitat would be managed when affected by resource uses of public lands. Special status species include federally listed, proposed, or candidate species; state protected species; and BLM sensitive species. The BLM must follow the requirements of the Endangered Species Act of 1973, as amended, and BLM policy to conserve federally listed threatened and endangered species and the habitat on which they depend. BLM policy also states, "…ensure that actions requiring authorization or approval by the Bureau of Land Management (BLM or Bureau) are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species, either under provisions of the ESA or other provisions of this policy." The Billings Field Office would manage special status species following the direction and guidance identified in BLM Manual 6840; recovery plans; biological opinions; conservation agreements, plans, and strategies; habitat conservation plans; and the recommendations from interagency recovery implementation teams. Special status and T & E species designations and lists are dynamic and subject to change based on population changes, habitat improvements and protections, and new data. Please refer to the Appendices for definitions, descriptions of laws, regulations, policies, and guidance, Best Management Practices (BMPs), Oil and Gas leasing notices, stipulations, and CSU guidelines, Wildlife Monitoring and Protection Plan, and T&E and Special Status Species lists. The appendices are intended to clarify the content of the RMP. The "Wildlife Monitoring and Protection Plan" (WMPP) (Appendix H), was prepared to acquire baseline wildlife information, monitor populations, and assess stipulations for effectiveness. Wildlife stipulations attached to leases offer protective measures: 1) for certain species, 2) during a particular time period, or 3) within a specific area. These stipulations may not address other concerns related to special status species or water/habitat related issues caused by direct and indirect impacts from development activities. Inventory and monitoring data will be used in adaptive management for improving wildlife management techniques and processes. Therefore, the WMPP would facilitate our ability to pinpoint problems (including the evaluation of other contributing factors), design project plans which include conservation for declining species, monitor the effectiveness of decisions, and make recommendations to adjust management to address specific situations. In 2010, the U.S. Fish and Wildlife Service determined that the greater sage-grouse is a Candidate species and Warranted, but precluded, by other priorities, for listing under the Endangered Species Act. In 2009, the MT/DAKs BLM delineated three types of sage-grouse habitat areas as part of the planning process (Map 23): • Sage-Grouse Habitat - Protection Priority Areas (PPAs), • Sage-Grouse Habitat - Restoration areas (RAs), and • Sage-Grouse Habitat - General Sage-Grouse Areas. Each area would have varying degrees of management in order to achieve the goals or objectives for each sage-grouse habitat area. The sage-grouse habitat delineations may be modified as needed as local site conditions change or as new information becomes available. Refer to the Glossary for definitions of the three sage-grouse habitat areas, Appendix AB for mitigation measures and conservation actions for Greater Sage-Grouse habitat, and Appendix AA for monitoring of Sage-Grouse and Sagebrush Habitats.			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Wildlife Habitat) – Desired Outcomes (Goals and Objectives)				
• Manage terrestrial habitat to provide native species diversity and viability, and to sustain ecological, economic, and social values while providing for multiple uses of public lands. • Manage for no net loss and connectivity of priority habitats on BLM-administered lands. The necessary habitat would be present to maintain, enhance, or restore T & E, special status, and priority native species populations. Sagebrush, native grasslands, seasonal or crucial wildlife ranges, special status species habitat, fisheries, cottonwood galleries, and riparian/wetlands would be priorities. • Manage all BLM actions or authorized activities to sustain wildlife populations and their habitats and to avoid contributing to the listing of or jeopardizing the continued existence or recovery of special status species and their habitats. • Manage or restore habitat on BLM-administered lands within the planning area to facilitate the conservation, recovery, and maintenance of populations of native, desirable non-native, and special status species consistent with appropriate local, state, and federal management plans. • Manage habitats to support MTFWP in the attainment of objectives and well-distributed, healthy populations of wildlife species consistent with the MTFWP's Strategic Habitat Plan, Montana's Comprehensive Fish and Wildlife Conservation Strategy, and strategic population plans, and to achieve the stated purpose of designated State of Montana Wildlife Management Areas. • Minimize fragmentation of large intact blocks of wildlife habitat to maintain connectivity, population migrations and functional blocks of security habitat for big game species. • Manage environmental risks and associated impacts in a manner compatible with sustaining plant, fish, wildlife, and special status species populations. Environmental risks include, but are not limited to, parasites, diseases, insect outbreaks, catastrophic fires, contamination, pesticides, rodenticides, herbicides, climate, and other hazards. • Provide for the long-term conservation, enhancement, and restoration of the sagebrush steppe/mixed-grass prairie complex in a manner that supports sustainable sage-grouse populations and a healthy diversity and abundance of wildlife species. • Coordinate with other agencies to prevent or control diseases, pests and species that threaten the health of humans, wildlife, livestock, and vegetation.			
Wildlife Habitat – Management Common to All Alternatives				
	Implement conservation actions identified in Executive Order 13186 – "Responsibilities of Federal Agencies To Protect Migratory Birds." Implement the North American Bird Conservation initiative to restore, enhance, and maintain habitats for migratory birds. Include USFWS Birds of Conservation Concern for Bird Conservation Regions 10 and/or 17 where appropriate through project level NEPA analysis. Emphasize maintenance and restoration of habitats that sustain special status species with minimum disturbance during the breeding season. Enhance or restore habitat composition and structure beyond PFC in riparian habitats, where and when appropriate, for migratory bird habitat.			
	Retaining important blocks of hiding, security, and thermal cover for big game would be considered during project planning. The BLM would emphasize habitat improvements in areas where there is limited or fragmented security habitat through vegetation treatments and route limitations (including seasonal closures).			
	Assist in the restoration, reintroduction, augmentation, or re-establishment of T & E, special status, and priority species and other populations and (or) habitats in coordination with other agencies.			
	Fences identified as barriers to wildlife movement on BLM-administered lands would be modified or removed to accommodate wildlife passage, unless the fences were built specifically to keep native ungulates out of an area. Fences would also be placed and marked, or modified, to reduce wildlife collisions or entanglements.			
	Conditions of Approval (COAs) would be applied to all Applications for Permit to Drill (APDs) for Special Status Species.			
	Utilize appropriate offsite compensatory mitigation to reduce impacts to wildlife habitat. This would be necessary if (1) all onsite mitigation has been accomplished and adverse effects have not been mitigated; or (2) if onsite mitigation is not feasible. Off –site mitigation would be applied as close to the affected area as possible and for the same or similar impacted species or habitats.			
	Manage siting of facilities to minimize impacts on wildlife habitat function and quality, to minimize impacts on vegetation resources for all uses, and to minimize wildlife mortality during			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	the life of the facility.			
	Overhead powerlines, where authorized, would follow the recommendations in *Avian Protection on Powerlines, State of the Art in 2006* (APLIC). Power poles and other tall structures would be designed to prevent raptors from perching on the poles and reflectors attached.			
	Where wildlife conflicts exist, tall structures or power lines would be designed to include bird flight diverters to prevent bird strikes and perching by birds of prey.			
	Functional wildlife escape ramps would be installed on all water tanks on BLM-administered public lands with preference given to built-in bird ramps in new troughs/ tanks.			
	Management techniques, including but not limited to prescribed and managed wildfire, prescriptive livestock grazing, planting, exclusion to intense disturbance, timber harvest and other mechanical methods would be used to restore, maintain or improve the desired ecological conditions of vegetation communities for the purpose of improving forage, nesting, breeding, and security habitat, hiding cover and travel corridors for a wide diversity of terrestrial and aquatic species.			
	Management actions would emphasize providing habitat of sufficient quantity and quality, including connectivity and wildlife movement corridors, habitat complexity, forest openings, edges, and ecotones, to enhance biological diversity and provide quality, sustainable habitat for native wildlife species.			
	Caves and abandoned mines would be inventoried for bat habitation. The BLM would determine the need for closures or seasonal closures for activities affecting caves and abandoned mines. Hibernacula and maternity cave closure dates would be determined when the inventory is completed.			
	Bat gates or other suitable measures would be used to protect bat habitat. Public health and safety could take precedence over protection of bat habitat if hazardous mine openings cannot be remediated.			
	Clearing of vegetation, would not be allowed within 250 feet of the entrance of caves and abandoned mines with populations of bats except for public safety and vegetation would only be removed for installing bat gates, noxious weed control, or when it becomes an obstruction to bat movement.			
	Areas that would be targeted for conversion from crested wheatgrass to native sagebrush/grasslands would be areas that have high wildlife habitat potential, particularly for sage-grouse, big game, and other sagebrush obligate species, and are currently monocultures with little vegetation diversity.			
	Predator control would be permitted subject to the stipulations outlined in the annual Animal Damage Control (ADC) Memorandum of Understanding between BLM and USDA-Animal Plant Health Inspection Service. Predator control in non-USDA ADC areas would be subject to the same stipulations as applied to those counties where predators are managed by USDA-APHIS.			
	The BLM could seasonally limit/close rock climbing activities in areas with active raptor nests and would educate the public about the importance of avoiding such locations.			
	Unoccupied raptor nests would be protected from removal or destruction for 7 years.			
	Surface disturbing and disruptive activities that impact special status species, particularly during critical life cycles, would be avoided or minimized.			
	Assist in the restoration, reintroduction, augmentation, or re-establishment of threatened, endangered, and other priority or special status species populations and (or) habitats in coordination with MFWP and USFWS.			
	Water developments, where deemed effective, would be managed to reduce the spread of West Nile virus			
	When wildlife or their habitat is affected, the BLM would require, as appropriate, a current year wildlife survey of the project area from the project proponent.			
	Oil and gas timing stipulations would not apply to operation and maintenance of production facilities. If environmental analysis determines that the operations and maintenance of oil and gas production facilities results in surface disturbing and disruptive activities or impacts, mitigation of these types of oil and gas activities would be applied where needed through Conditions of Approval (COAs) to minimize impact of human activities on important seasonal wildlife habitat.			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Wildlife Habitat – Management Common to Action Alternatives				
	No current management decision provided.	Mitigation of surface-disturbing or disrupting activities (including operations and maintenance associated with fluid mineral development) would be applied where needed to minimize impacts of human activities on important seasonal wildlife habitats, consistent with the wildlife stipulations outlined in the Wildlife / Special Status Species and Fluid Minerals sections of Chapter 2. Mitigation measures would be applied during activity level planning if an on-site evaluation of the project area indicates the presence of important wildlife species. Exceptions may be granted by the authorized officer, if an environmental review demonstrates that effects could be mitigated to an acceptable level, habitat for the species is not present in the area, or portions of the area can be occupied without affecting a particular species. Exceptions may also be granted where the short-term effects are mitigated by the long-term benefits (e.g., prescribed fire, wildlife monitoring, or forest health treatments). As defined in the Glossary, surface-disturbing and disruptive activities would not prohibit all activities or authorized uses. For example, emergency activities (e.g., fire suppression, search and rescue), rangeland monitoring, routine maintenance associated with an approved authorization, dispersed recreational activities (e.g., hunting, hiking), and livestock grazing are not considered surface-disturbing or disruptive activities.		
	No current management decision provided	Where environmental analysis and monitoring demonstrate a continued need for mitigation or insufficient mitigation measures are present for impacts to wildlife, restrictions could be applied to the operation and maintenance of production facilities or other projects.		
	Comply with Rangeland Health Standard 5	Monitor areas with wildlife habitat conflicts on an annual basis. Identify all/any activities leading to causal factors for not achieving Standard 5. Where Standard 5 is not being met, guidelines would be applied within 1 year to make progress toward meeting the standard.		
	No current management decision provided for Waterbird Colonies	Surface disturbing and disruptive activities would be avoided within ¼ mile of a waterbird nesting colony. Additionally, surface-disturbing and disruptive activities would be avoided from April 1 through July 15 within ½ mile of a waterbird nesting colony. Surface occupancy and use for oil and gas exploration (including geophysical exploration) is prohibited within ½ mile of a waterbird nesting colony. (NSO) Surface use for oil and gas exploration (including geophysical exploration) is prohibited within 1 mile of a waterbird colony from April 1 through July 15. (TL)		
	No current management decision provided for Sprague's pipit	Surface-disturbing and disruptive activities would be avoided from April 15 through July 15 in Sprague's pipit habitat. Surface use for oil and gas exploration, (including geophysical exploration) is prohibited from April 15 through July 15 in Sprague's pipit habitat. (TL)		
Wildlife Habitat – Management Actions by Alternative				
	Where resource conflicts exist, Low voltage powerlines would be buried if feasible.	Where resource conflicts exist, BLM would not authorize above-ground powerlines (<69kV), unless burying the powerline is not feasible.	Where resource conflicts exist, powerlines (<69kV) would be authorized in a manner that ensures habitat is maintained (e.g. burying or line location).	Where resource conflicts exist, BLM would not authorize above-ground powerlines (<69kV), unless burying the powerline is unfeasible. If burying powerlines is unfeasible, then powerlines would be authorized in a manner that ensures habitat is maintained (e.g. line location).

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	No similar action	Where federal mineral estate exists, designate all State Wildlife Management Areas, Fishing Access Sites, and State Parks as No Lease areas (NL).	Oil and gas leasing, development and exploration would be allowed, if habitat suitability within designated State Wildlife Management Areas, Fishing Access Sites, and State Parks is maintained (CSU).	Oil and gas leasing, development and exploration would be allowed with NSO in designated State Wildlife Management Areas, Fishing Access Sites, and State Parks (NSO).
	Big Game Parturition			
	Oil and gas exploration and development and geophysical exploration would be prohibited from April 1 to June 15 (TL) within established spring calving range for elk.	Surface use for oil and gas exploration (including geophysical exploration) would be prohibited from April 1 to July 1 within established big game parturition habitat (TL).	Surface occupancy and use for oil and gas exploration leasing and development and (including geophysical exploration) within big game parturition habitat would be allowed with CSU stipulations.	Surface occupancy and use for oil and gas exploration (including geophysical exploration) would be prohibited from April 1 to July 1 within established big game parturition habitat, unless the operator submits a plan of development to maintain the habitat, avoid habitat loss and minimize disturbance. The mitigation plan would be approved by the authorized officer (TL) (CSU).
	Big Game Winter Range			
	Surface use is prohibited to avoid disturbance of white-tailed deer, mule deer, elk, pronghorn antelope, moose, and bighorn sheep during the winter use season, December 1 - March 31 (TL).	Surface occupancy and use for oil and gas exploration (including geophysical exploration) and geothermal operations is prohibited to avoid disturbance of white-tailed deer, mule deer, elk, pronghorn antelope, moose, and bighorn sheep during the winter use season, December 1 - March 31, big game winter range habitat (Maps 15-20). The following special operating constraints apply in big game winter habitat (Maps 15-20): • Surface occupancy and surface disturbance density and / or mitigation plan (CSU).	Surface use is prohibited to avoid disturbance of white-tailed deer, mule deer, elk, pronghorn antelope, moose, and bighorn sheep during the winter use season, December 1 - March 31 (TL).	Surface occupancy and use for oil and gas exploration (including geophysical exploration) and geothermal operations would be prohibited from December 1 to March 31 within big game winter range habitat (Maps 15-20) (TL). In addition, the following special operating constraints apply: surface occupancy and surface disturbance density and / or mitigation plan (CSU). Within big game winter range habitat (Maps 15-20), the proponent would be required to conduct big game inventories in the project area prior to conducting any operations. If big game concentrations are found, the following CSU constraint would apply to maintain the habitat, avoid habitat loss and minimize disturbance: surface occupancy and surface disturbance density and / or

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
				mitigation plan (CSU).
	No similar action.	No new permanent roads would be allowed in areas where open road densities are ½ mile/ square mile (mi/mi^2) or less in big game winter range habitat (Maps 15-20), and parturition ranges unless not possible due to conflicts with valid existing rights. All practicable measures would be taken to assure that important habitats with low road densities remain in that condition. BLM would manage to reduce open road densities in big game winter range (Maps 15-20) and parturition ranges where they exceed 1 ½ mi/mi^2. Roads would be gated during crucial seasons, closed and/ or reclaimed.	There would be no net increase in permanent roads built in areas where open road densities are 1 ½ mi/mi^2 or less in big game winter and parturition ranges unless not possible due to conflicts with valid existing rights. All practicable measures would be taken to assure that important habitats with low road densities remain in that condition. BLM would manage to reduce open road densities in big game winter and parturition ranges where they exceed 1 ½ mi/mi^2. Roads would be gated during crucial seasons, closed and/ or reclaimed.	There would be no net increase in permanent roads built in areas where open road densities are 1 mi/mi^2 or less in big game winter range habitat (Maps 15-20) and parturition ranges, unless not possible due to conflicts with valid existing rights. All practicable measures would be taken to assure that important habitats with low road densities remain in that condition. BLM would manage to reduce open road densities in big game winter range (Maps 15-20) and parturition ranges where they exceed 1 mi/mi^2. Roads would be gated during crucial seasons, closed and/ or reclaimed.
	No current management decision provided	Over the snow vehicles would be prohibited in big game crucial winter range.	Over the snow vehicles would be allowed in big game crucial winter range.	Same as B
	Bighorn Sheep Habitat			
	Oil and gas leasing and development would be allowed with an NSO stipulation within the designated bighorn sheep range (Map 17).	Surface occupancy and use for oil and gas exploration (including geophysical exploration) and development would be prohibited within designated bighorn sheep range (NSO).	Oil and gas exploration and development and geophysical exploration would require a mitigation plan to maintain habitat and avoid habitat loss (CSU).	Surface occupancy and use for oil and gas exploration (including geophysical exploration) and development would be prohibited within designated bighorn sheep lambing and winter range areas (NSO). Prior to surface occupancy or use within bighorn sheep range, a plan to maintain bighorn sheep habitat would be prepared by the proponent and implemented upon approval by the authorized officer. (CSU)
	Sheep or goats would not be permitted within 9 miles from known bighorn sheep habitat (Map 17). This distance would be greater if deemed necessary through site specific analysis.	Conversions from cattle to domestic sheep or goats would be prohibited in allotments within occupied wild sheep habitat (Map 17). New sheep and goat allotments or conversions from cattle to sheep or goats would not be permitted within 14.3 miles from known bighorn sheep habitat. This	Conversions from cattle to domestic sheep or goats would be prohibited in allotments within occupied wild sheep habitat (Map 17). New sheep and goat allotments or conversions from cattle to sheep or goats would not be permitted within 12.4	Domestic sheep/goat permits – No new grazing permits authorizing sheep or goat allotments would be allowed in bighorn sheep range (Map 17). Sheep and goat allotments in areas with risk of contact with bighorn sheep and domestic sheep and/or goats in the

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		distance would be greater if deemed necessary through site specific analysis.	miles from known bighorn sheep habitat. This distance would be greater if deemed necessary through site specific analysis.	planning area would be reviewed and managed, or reclassified if necessary, to achieve effective separation (both temporal and/or spatial) between domestic sheep and/or goats and bighorn sheep. Contact risk would be based on habitat, distance between bighorn sheep range (current and anticipated), sheep and goat allotments, movement potential, and current science and guidelines. Domestic sheep/goats would not be allowed within bighorn sheep range unless mechanisms are in place to achieve effective separation from wild sheep.
	Raptor Nests (Applies to Special Status Species including ferruginous hawk, burrowing owl, great grey owl, Swainson's hawk, northern goshawk, and osprey (Bald and Golden Eagles and peregrine falcons are addressed below) (note: Special Status Species designations can change)			
	Oil and gas exploration and development surface use would be prohibited from March 1 to August 1 (TL) within 0.5 mile of raptor nest sites which have been active within the past 2 years. Geophysical exploration would be prohibited.	Surface occupancy and use for oil and gas exploration and development activities (including geophysical exploration) would be prohibited within ½ mile of raptor nest sites which have been active within the past 7 years (NSO).	Oil and gas exploration and development and geophysical exploration activities would be prohibited within ¼ mile of raptor nest sites which have been active within the past 7 years (NSO).	Surface occupancy and use for oil and gas exploration and development activities (including geophysical exploration) would be prohibited within ¼ mile of raptor nest sites that were active within the preceding 7 breeding seasons (NSO). Surface occupancy and use for oil and gas exploration (including-geophysical exploration) activities would be prohibited from March 1 through July 31 (TL) within ½ mile of raptor nest sites that were active within the preceding 7 breeding seasons.
	Sharp-tailed Grouse Leks and Nesting Habitat			
	Surface occupancy within ¼ mile of leks is prohibited.	Surface occupancy and use for oil and gas exploration and development (including geophysical exploration) would be prohibited within 2 miles of sharp-tailed grouse leks (NSO).	Oil and gas exploration and development and geophysical exploration within ¼ mile of sharp-tailed grouse lek sites and nesting habitats would be subject to the following constraints: (1) noise from oil, gas and geothermal production facilities would not exceed 49 decibels (10dBa above background noise at the lek site); and (2) operational constraints would	Surface occupancy and use for oil and gas exploration and development (including geophysical exploration) would be prohibited within ¼ mile of sharp-tailed grouse leks (NSO).

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
			include off-site production facilities and gated access to minimize disturbance to sharp-tailed grouse lek sites and nesting habitats (CSU).	
	Oil and gas exploration and development (including geophysical exploration) would be prohibited from March 1 to June 15 (TL) in sharp-tailed grouse nesting habitat within 2 miles of a lek. (67,101 acres)	Surface occupancy and use for oil and gas exploration and development (including geophysical exploration) would be prohibited within 2 miles of sharp-tailed grouse leks (NSO).	Surface use for oil and gas exploration and development (including geophysical exploration) would be prohibited between March 1 to June 15 in sharp-tailed grouse nesting habitat within ½ mile of a lek (TL).	Surface use for oil and gas exploration and development (including geophysical exploration) would be prohibited between March 1 to May 1 within ½ mile of sharp-tailed grouse leks (TL).
Special Status Species (Wildlife) – Management Actions Common to All Alternatives				
	All federally listed and BLM sensitive species and their habitats would be considered priority species and habitats.			
	Identify distribution, key habitat areas, and special management needs for development of management plans and conservation measures, consistent with restoration, conservation and recovery plans for threatened, endangered, and other special status species. Priority habitats are riparian/ wetland areas, native grasslands, sagebrush steppe, conifer forests, and seasonal ranges supporting life cycle requirements for wildlife (i.e., winter, breeding, parturition, etc.).			
	Timing restrictions would be used in special status species habitat. Surface disturbing and disruptive activities that impact special status species habitats during their seasons of use, particularly during critical life cycles would be avoided or minimized.			
	Assist in the restoration, reintroduction, augmentation, or re-establishment of threatened, endangered, and other priority or special status species populations and (or) habitats in coordination with MTFWP and USFWS.			
	Water developments, and discharge water from energy development, where deemed effective, would be managed with BMPs to reduce the spread of West Nile virus			
	The BLM would require, as appropriate, a current year wildlife survey of the project area from the project proponent.			
Special Status Species (Wildlife) – Management Actions By Alternative				
	Potential Black-Footed Ferret Habitat			
	Black-footed ferret habitat is defined as prairie dog colonies within 1.5 km of each other and comprising of 1,000 acres. Surface occupancy and use for oil and gas leasing, development, and exploration and geothermal operations would be prohibited within ¼ mile of black-footed ferret habitat (NSO).			
	Black-tailed and White-tailed Prairie Dogs			
	Management of prairie dog colonies on public lands would be subject to the Conservation Plan for Black-tailed and White-tailed Prairie Dogs in Montana. White-tailed prairie dogs would be considered a priority for management due to limited and declining populations in Montana.			
	Prior to surface-disturbing activities, prairie dog colonies and complexes 80 acres or more in size and containing 5 burrows per acre would be examined to determine the presence or absence of black-footed	Oil and gas leasing, development, and exploration, and geothermal operations would be prohibited within ½ mile of black-tailed or white-tailed prairie dog colonies, active within the past 10 years (NSO).	Oil and gas leasing, development and exploration, and geothermal operations would be allowed with within black-tailed or white-tailed prairie dog colonies with a mitigation plan (CSU).	Oil and gas leasing, development and exploration, and geothermal operations would be prohibited within ¼ mile of black-tailed or white-tailed prairie dog colonies (NSO).

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	ferrets (CSU)		Refer to Guidelines for Wildlife CSUs – Appendix H.	
	Prairie Dog Habitat			
	Management of prairie dog colonies on public lands would be subject to the statewide prairie dog conservation plan (2002). Prairie dog towns that occur on public lands would be managed for wildlife and recreational values.	Prairie dog colonies would be managed to ensure their populations are maintained at the current levels. If populations decline, measures would be implemented to develop and enhance habitat for colony expansions.*	Prairie dog colonies would be managed for maintenance of populations where the public has access. Control measures would be considered with the following criteria*:	Prairie dog colonies would be managed for maintenance of populations where the public has access. Control measures would be considered with the following criteria*:
			*Prairie dog towns would be allowed to expand as long as they are not adversely impacting adjacent private or state land, other resources, or affecting Standards for Rangeland Health (Appendix I). Prairie dog towns would be adversely impacting other resources, and controls could be considered, if the towns are: • The source of or an exacerbation of invasive or noxious plants; • Substantially limiting forage and/or important habitat for wildlife species in the immediate area; • Substantially limiting forage for livestock in the immediate area; • Overriding the effectiveness of other management measures; or • Posing a substantial economic hardship or risk for other landowners, resulting from the need to control populations on private or state land because of prairie dogs on adjacent BLM land. Controls would not occur where mountain plover or burrowing owls have been documented using established habitat. Prairie dogs could be reestablished on historic towns that have been eradicated or that have died out due to sylvatic plague. Specific actions to address adverse impacts to or from prairie dogs would be addressed through a site-specific environmental assessment.	
	Mountain Plover			
	Surface use is prohibited within ¼ mile of active mountain plover nest sites. Disturbance to prairie dog towns would be avoided where possible. Any active prairie dog town occupied by mountain plovers would have No Surface Use between April 1 and July 31. (NSO)	Surface occupancy and use for oil and gas exploration and development (including geophysical exploration) would be prohibited within ½ mile of mountain plover habitat (NSO).	Oil and gas leasing and development and geophysical exploration would not be allowed within ¼ mile of mountain plover habitat, subject to the following special operating constraints: (1) operational constraints could include off-site production facilities, audio restrictions, and gated access to minimize disturbance to key mountain	Surface use for oil and gas exploration (including geophysical exploration) would be prohibited from April 1 through July 31 within ¼ mile of mountain plover habitat (NSO/TL). Note: *NSO would apply to permanent or long-term action. TL would apply to temporary or short-term disturbances.*

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
			plover habitats (CSU).	
	Peregrine Falcon			
	Oil and gas leasing and development would be allowed with an NSO stipulation within 1 mile of peregrine falcon nesting sites. Geophysical exploration would not be allowed.	Surface occupancy and use for oil and gas exploration and development (including geophysical exploration) would be prohibited within 1 mile of peregrine falcon nesting sites (NSO).	Surface occupancy and use for oil and gas exploration (including geophysical exploration) would be prohibited within ¼ mile of active peregrine falcon nesting sites (NSO).	Surface occupancy and use for oil and gas exploration and development (including geophysical exploration) would be prohibited within ½ mile of peregrine falcon nest sites active within the preceding 7 breeding seasons. (NSO).
	Bald Eagle and Golden Eagle Nests and Habitat			
	BGEPA (Bald and Golden Eagle Protection Act): BLM would coordinate with USFWS on activities that may affect bald or golden eagles for compliance with BGEPA. The BLM would not issue a notice to proceed for any project that is likely to result in take of bald eagles and/or golden eagles until the applicant completes its obligation under applicable requirements of BGEPA, including completion of any required procedure for coordination with the FWS or any required permit. The applicant may be required to conduct further analysis and mitigation following assessment of operational impacts.			
	Activities and habitat alterations including surface disturbing or disruptive activities that disturb eagles would be restricted within suitable habitats or avoided within ½ mile of eagle nest sites active within the preceding 5 breeding seasons. Activities in bald eagle habitat would be conducted according to Montana Bald Eagle Management guidelines (Montana Bald Eagle Working Group, 2009, Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan, 1994).			
	Bald eagle and golden eagle nesting habitats would be actively protected from loss due to fire, insect, or disease by reducing vegetation competition and encroachment in these habitats, unless visual barriers are compromised.			
	Oil and gas leasing and development would be prohibited within an NSO stipulation within ½ mile of eagle nest sites which have been active within the past 7 years and within eagle nesting habitat in riparian areas (NSO). Geophysical exploration would not be allowed.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within 1 mile of eagle nest sites which have been active in the past 7 years and within eagle nesting habitat in riparian areas (NSO).	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ¼ mile of active eagle nest sites (NSO).	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ½ mile of eagle nest sites that were active within the preceding 5 breeding seasons.
	Greater Sage-Grouse			
	Refer to Crested Wheatgrass conversion alternative in the Vegetation- Rangelands section of this table. Acreages and priorities for conversion or treatments are discussed. Sage-grouse habitat is a priority for crested wheatgrass conversions or treatments.			
	Surface use is prohibited from December 1 to March 31 within crucial winter range for sage-grouse. Stipulation does not apply to the operation and maintenance of production facilities. Note: Crucial winter range was not	Surface use for oil and gas exploration (including geophysical operations) would be prohibited from December 1 to March 1 within greater sage-grouse winter range or within 4 miles of a sage-grouse lek (TL). The following special operating constraints	Surface use for oil and gas exploration (including geophysical operations) would be prohibited from December 1 to March 1 within greater sage-grouse winter range or within 2 miles of a sage-grouse lek (TL).	Surface use for oil and gas exploration (including geophysical operations) would be prohibited from December 1 to March 1 within greater sage-grouse winter range or within 2 miles of a sage-grouse lek (TL). The following special operating constraints

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	designated for sage grouse.	apply in greater sage-grouse winter range: surface occupancy and surface disturbance density and / or mitigation plan (CSU) within greater sage-grouse winter range.		apply in greater sage-grouse winter range: surface occupancy and surface disturbance density and / or mitigation plan (CSU) within greater sage-grouse winter range.
	No similar action	Manage priority sage-grouse habitats so that discrete anthropogenic disturbances cover less than 3% of the total sage-grouse habitat regardless of ownership to protect priority sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse.	The BLM will apply appropriate mitigation measures and conservation actions to BLM authorized activities to avoid, minimize, rectify, reduce, or compensate for impacts if an evaluation of the project area indicates the presence of important wildlife species, seasonal wildlife habitat, or other resource concern.	
	Protection Priority Areas (PPAs) for Greater Sage-Grouse habitat: to maintain or improve sage-grouse populations by maintaining sage-grouse habitat in good condition.			
	No similar action - sage-grouse habitat is managed uniformly throughout the planning area.	Establish Greater Sage-Grouse PPAs (154,140 acres of BLM-administered lands and 191,543 acres of federal minerals). These PPAs are generally consistent with MTFWP greater sage-grouse core area designations, with the exception of one small area in southern Carbon County near Elk Basin Oil field (Map 23).		
	No similar action	Create Greater Sage-Grouse ACEC on the 154,140 acres of BLM managed surface of greater sage-grouse PPA.	No ACEC established	
	Open to oil and gas leasing and geophysical operations, subject to the following lease stipulations: Surface occupancy and use would be prohibited within 0.25 miles of sage-grouse leks (NSO).	Closed to future oil and gas leasing, exploration and/or development and prohibit other surface disturbing and disruptive activities (NL). Surface occupancy and use would be prohibited in all PPA habitat areas. Leases would not be renewed upon expiration.	Open to oil and gas leasing and development (including geophysical exploration). Surface occupancy and use would be prohibited within 0.6 miles of sage-grouse leks (NSO). Surface occupancy and use would be subject to the following special operating constraints: surface occupancy and surface disturbance density and mitigation plan (CSU).	Open to oil and gas leasing and development (including geophysical exploration). Surface occupancy and use would be prohibited within sage-grouse PPAs (NSO).
	(2 mile buffer for nesting)	Closed to future oil and gas leasing, exploration and/or development and prohibit other surface disturbing and disruptive activities (NL).	Surface use would be prohibited from March 1 to June 15 in sage-grouse nesting habitat within 2 miles of a lek.	Surface occupancy and use would be prohibited in sage-grouse PPAs (NSO).
	Open to commercial renewable energy.	Exclusion area for commercial renewable energy exploration and facility development.	Avoidance area for renewable energy exploration and facility development with approved mitigation.	Same as C

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Open for ROWs.	Exclusion area for ROWs, except for valid existing rights.	Avoidance area for ROWs. Utilities and similar facilities would be located adjacent to other facilities where practical and only when habitat suitability can be maintained.	Same as C
	Greater Sage Grouse Restoration Areas (RAs): In these areas, BLM would manage habitat so that sage-grouse populations can be restored over the long-term. BLM would strive to restore historical sage-grouse habitat functionality, or at a minimum, have no net loss of sage-grouse habitat, to support sage-grouse populations.			
	No similar action - sage-grouse habitat is managed uniformly throughout the planning area.	Establish RAs (45,555 acres of BLM-administered lands and 63,437 acres of federal mineral estate). These areas would include one small polygon of core habitat in Carbon County near Elk Basin Oil Field, as well as other areas (Map 23).		
	Open to oil and gas leasing and geophysical operations, subject to the following lease stipulations: • Surface occupancy and use would be prohibited within ¼ miles of sage-grouse leks (NSO). • Surface occupancy and use would be prohibited from March 1 to June 15 in sage- grouse nesting habitat within 2 miles of a lek (TL).	Surface occupancy and use for oil and gas exploration and development would be prohibited within 0.6 miles of sage-grouse leks (NSO). Surface use for oil and gas exploration and development would be prohibited from March 1 to June 15 in sage-grouse nesting habitat within 4 miles of a lek (TL). Surface occupancy and use for oil and gas exploration and development would be subject to the following special operating constraints that would maintain sage-grouse habitat (CSU –surface occupancy and surface disturbance density and mitigation plan).	Surface occupancy and use for oil and gas exploration and development would be prohibited within ¼ miles of sage-grouse leks (NSO). Surface use for oil and gas exploration and development would be prohibited from March 1 to June 15 in sage- grouse nesting habitat within 2 miles of a lek (TL).	Surface occupancy and use for oil and gas exploration and development would be prohibited within 0.6 miles of sage-grouse leks (NSO). Surface use for oil and gas exploration and development would be prohibited from March 1 to June 15 in sage-grouse nesting habitat within 3 miles of a lek (TL). Surface occupancy and use for oil and gas exploration and development would be subject to the following special operating constraints that would maintain sage-grouse habitat (CSU –surface occupancy and surface disturbance density and mitigation plan).
	Open to geophysical exploration, subject to the following: • Surface occupancy and use would be prohibited within ¼ miles of sage-grouse leks. (NSO) (4,876 acres) • Surface use is prohibited from March 1 to June 15 in grouse nesting habitat within 2 miles of a lek (TL).	Geophysical exploration would be allowed on existing roads and trails with surface use prohibited from March 1 to June 15 within 4 miles of a lek (TL).	Geophysical exploration would be allowed if the applicant demonstrates that sage-grouse habitat suitability would be maintained.	Same as B
	Open to commercial renewable energy.	Exclusion area for commercial renewable energy exploration and facility development.	Avoidance area for renewable energy exploration, development and facilities with approved mitigation.	Same as C

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Open for ROWs	Avoidance area for ROWs.	ROWs would be allowed if suitable sage-grouse habitat can be maintained. Utilities and similar facilities would be located adjacent to other facilities where practical and only when habitat can be maintained.	Same as C
	Greater Sage Grouse Habitat: General Habitat Areas: BLM would maintain habitat for viable sage-grouse populations to promote movement and genetic diversity. Maintain, restore or enhance sage-grouse habitat and connectivity between sagebrush habitats, with emphasis on those habitats occupied by sage-grouse.			
	Sage-grouse habitat is managed uniformly throughout the planning area.	Establish General Habitat Areas (78,575 acres of BLM-administered lands and 116,452 acres of federal mineral estate). These areas include a 3 mile buffer around greater sage-grouse leks, outside of the PPA and RA areas (Map 23).		
	Oil and gas leasing and development would not be allowed within ¼ mile of sage-grouse leks (NSO). Oil and gas surface occupancy and use would be prohibited from March 1 to June 15 in sage-grouse nesting habitat within 2 miles of a lek (TL).	Surface occupancy and use for oil and gas exploration and development would be prohibited within 0.6 miles of sage-grouse leks (NSO). Surface use for oil and gas exploration and development would be prohibited from March 1 to June 15 in sage-grouse nesting habitat within 3 miles of a lek (TL).	Oil and gas leasing and development would be prohibited within ¼ miles of sage-grouse leks (NSO). Surface use for oil and gas exploration and development would be prohibited from March 1 to June 15 in sage- grouse nesting habitat within 2 miles of a lek (TL).	Same as B
	Open to geophysical exploration, subject to the following: • Surface occupancy and use would be prohibited within ¼ mile of sage-grouse leks. (NSO) • Surface use is prohibited from March 1 to June 15 in grouse nesting habitat within 2 miles of a lek (TL).	Geophysical exploration would be allowed on existing roads and trails with surface use prohibited from March 1 to June 15 within 3 miles of a lek (TL).	Geophysical exploration would be allowed with mitigation to maintain sage-grouse habitat suitability.	Same as B.
	Open to commercial renewable energy.	Exclusion area for commercial renewable energy exploration and facility development.	Avoidance area for renewable energy exploration, development and facilities with approved mitigation.	Same as C
	Open for ROWs	Avoidance area for ROWs.	ROWs would be allowed if suitable sage-grouse habitat can be maintained. Utilities and similar facilities would be located adjacent to other facilities where practical and only when habitat can be maintained.	Same as C

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Fisheries Habitat and Special Status Species (Fisheries)				
The BLM goals for the management of fisheries resources within the Billings Field Office decision area are to manage aquatic and riparian habitats to provide native and desirable non-native aquatic species diversity and viability, sustaining ecological, economic and social values while providing for multiple uses of public lands. The BLM partners with Montana Fish, Wildlife and Parks (MTFWP) and other natural resource management agencies in plans to provide sound ecological management of aquatic resources, implementing a variety of management actions that regulate resource uses or activities that have the potential to degrade or enhance riparian and aquatic habitats. The actions specific to fisheries and aquatic resource management are listed below, by alternative. These actions primarily focus on reducing ground disturbance in or near riparian areas adjacent to fisheries and water resources, which can lead to degraded riparian function, increasing erosion, sedimentation, and water temperatures, and direct habitat alteration (increased width to depth ratios, removal of security cover and loss of coarse woody debris recruitment). These actions would guide the authorization of BLM activities, ensuring the maintenance or enhancement of riparian and aquatic habitats to protect water quality, fisheries and other aquatic species from harmful impacts associated with those activities. The BLM identifies opportunities to protect these resources in partnership with private land owners adjacent to public lands, generally expanding quality fisheries and habitat management where feasible. Actions under "Management Common to All Alternatives", sets the basis for fisheries habitat management, while those actions in various alternatives provides a range of levels of protection that may impact other resource uses. Some actions associated with other resources (soils, water, wildlife, vegetative communities, etc.) benefit fisheries resources by concentrating on watershed health, promoting proper drainage of the surrounding uplands. The Billings Field Office decision area contains populations of Yellowstone Cutthroat Trout (YCT) and associated habitat. YCT are a BLM special status fish species, warranting specific actions to protect and enhance existing populations and habitat conditions. Many actions listed below have been developed through cooperative efforts to ensure viable populations persist in existing habitats, as well as opportunistically restoring habitats and populations in streams that currently do not have populations.				
Fisheries – Desired Outcomes (Goals and Objectives)				
• Manage aquatic habitat to provide native and desirable non-native species diversity and viability, and sustain ecological, economic, and social values while providing for multiple uses of public lands. • Manage aquatic ecosystems to provide sustainable recreational and educational benefits to the public. • Manage fisheries habitat to support Montana Fish, Wildlife and Park's Strategic Habitat Plan and the Montana Comprehensive Fish and Wildlife Conservation Strategy. • Management activities would emphasize restoration and/or maintenance of riparian structure, composition, and processes, including physical integrity of riparian ecosystems, amount and distribution of woody debris to sustain physical and biological complexity, adequate summer and winter thermal regulation, water quality and hydrologic processes, distribution and diversity of riparian vegetative communities and source habitats for riparian dependent species. • Use cooperative efforts to minimize negative impacts to, or enhance aquatic ecosystems on adjacent private lands. • Coordinate with other agencies to prevent or control diseases, pests and species that threaten the health of humans, wildlife, livestock, and vegetation. • Manage or restore habitat on BLM-administered lands within the planning area to facilitate the conservation, recovery and maintenance of populations of native and special status species (BLM special status species, Candidate species, USFWS listed, proposed, or petitioned species) consistent with appropriate local, state, and federal management plans. • Yellowstone Cutthroat Trout bearing waters and associated riparian habitat would be managed to protect all ecological values necessary to maintain or enhance YCT populations (using guidelines outlined in the *Conservation Strategy for Yellowstone Cutthroat Trout in the States of ID, MT, UT, NV, and WY*).				
Fisheries – Management Common to All Alternatives				
	Manage riparian areas and wetlands supporting fisheries toward PFC, as required through Standards and Guidelines.			
	Roads would be located, designed and maintained, to the extent practical, to reduce sedimentation, identify and remove unnatural barriers, eliminate fish passage barriers (when desired), and restore or maintain riparian vegetation.			
	Manage siting of facilities to minimize impacts on fish habitat function and quality, to minimize impacts on vegetation resources for all uses, and to minimize fish mortality during the life of the facility.			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	If natural barriers cannot be used, in-channel barriers (including selective barriers) would be constructed downstream of the native fish populations at risk from invasion.			
	Impacts beyond the riparian zone would be considered as part of YCT habitat management. Project-level activities would mitigate impacts on water quality, in-stream habitat, channel morphology, and riparian areas to benefit YCT populations.			
	Habitat-improvement techniques would be used where appropriate to provide missing habitat components or improve existing habitats.			
	The BLM would continue to partner with MT FWP in the establishment of fishing access sites.			
	Land and water management decisions likely to affect YCT populations would include both pre- and post-project evaluation and monitoring to ensure that the habitat elements for YCT are protected.			
	Use restoration to enhance YCT habitat and riparian function where habitat conditions are determined to be degraded.			
	Opportunistically enhance or restore habitat for populations of YCT.			
	Establish high priority YCT habitat zones and increase monitoring on YCT bearing streams to ensure no significant degradation to water quality and fish habitat.			
	Develop and maintain a prairie fish and fish habitat inventory and identify potential or suitable habitat.			
Fisheries – Management Actions by Alternative				
	No current management decision provided	Mitigation of surface-disturbing activities would be applied where needed to minimize impacts of human activities on important fisheries, riparian and water resources, consistent with the stipulations identified for oil and gas development in this section. Mitigation measures would be applied during activity level planning if an on-site evaluation of the project area indicates the presence of important fisheries, water or riparian resources. Exceptions may be granted by the authorized officer, if an environmental review demonstrates that effects could be mitigated to an acceptable level, habitat for the species is not present in the area, or portions of the area can be occupied without affecting a particular species or habitat. Exceptions may also be granted where the short-term effects are mitigated by the long-term benefits (e.g., prescribed fire, wildlife monitoring, forest health treatments, and habitat restoration). As defined in this chapter and in the Glossary, surface-disturbing and disruptive activities would not prohibit all activities or authorized uses. For example, emergency activities (e.g., fire suppression, search and rescue), rangeland monitoring, routine maintenance associated with an approved authorization, dispersed recreational activities (e.g., hunting, hiking), and livestock grazing are not considered surface-disturbing or disruptive activities.		
	Oil and gas leasing and development would only be allowed with an NSO stipulation on riparian areas or wetlands. NSO within 100 year flood plains of major rivers and on water bodies and streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ¼ mile of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within 300 feet of riparian areas and wetlands, water bodies, perennial streams, and flood plains of perennial streams.
	No current management decision provided.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ½ mile of Blue and Red Ribbon streams, YCT populations and YCT suitable habitat (Maps	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ¼ mile of Class I (Blue Ribbon) streams, and YCT populations (Maps 26, 27).	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ½ mile of Class I (Blue Ribbon) streams, and YCT populations (Maps 26, 27).

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		26-28).		
	NSO for oil and gas leasing and development and geophysical exploration within ¼ mile of designated reservoirs with fisheries.	Surface occupancy and use for oil and gas exploration (including geophysical operations) would be prohibited within ½ mile of designated reservoirs with fisheries.	Same as A	Same as A
	Spring developments would be considered on a case-by-case basis.	New spring developments would not be authorized in riparian areas or wetlands.	New spring developments would be authorized and fenced if the development would maintain the integrity and functionality of the associated riparian area/wetland.	Same as C
	Approximately 10 miles of streams with active fisheries would be surveyed per year to collect species occurrence and habitat condition data.	Habitat conditions would be monitored on fish-bearing streams (approx. 10 miles) on a 3 year rotation.	Fish-bearing stream habitat would not be surveyed or monitored. Other source-data (e.g., FWP) would be used to assist in management decisions as needed.	Habitat conditions would be monitored on fish-bearing streams (approx. 7 miles) with existing or potential threats, where grazing or human-caused impacts are likely.
	No current management decision provided	Livestock grazing would be excluded from fish bearing streams and associated riparian habitat. Fencing around the riparian zone, or at least 50' from the water's edge or using drift fence or other methods to exclude livestock from the riparian zone.	Livestock grazing would be allowed on YCT- bearing or other sensitive habitats as long as rangeland health standards are being met. If standards cannot be met through grazing management, grazing would be excluded. Fencing around the riparian zone, or at least 50' from the water's edge or using drift fence or other methods to exclude livestock from the riparian zone.	Same as C
	Survey three reservoirs per year to determine suitability for sport fishery.	Reservoir fishery development would not be promoted by the BLM.	Existing and potential reservoirs would be developed to promote recreational fisheries and riparian/aquatic habitat enhancement.	Development of existing or potential reservoirs would be considered to promote recreational fisheries and riparian/aquatic habitat enhancement.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Wild Horses and Burros				
Protection, management, and control of wild horses to ensure a thriving natural ecological balance and preserving multiple use relationships are the primary management drivers for wild horses maintained on BLM administered lands. Wild horses are principally managed under authorities from the Wild Free-Roaming Horse and Burro Act of 1971, as amended. Numerous other public land laws (e.g. Federal Land Policy and Management Act, Public Range Improvement Act, Taylor Grazing Act, Antiquities Act, Wilderness Act) other Federal Agencies (e.g. United States Forest Service, National Park Service) and Secretarial Orders also dictate management activities that can occur on the land and resources that wild horses use. Due to this myriad of public land law, the primary management tool for wild horses is maintenance of numbers or appropriate management level (AML) through removal of excess animals or fertility control (e.g. birth control or sterilization). Management of the wild horses on the range is designed to manage both the population and individual animals while making progress towards standards for rangeland health, in balance with other multiple uses.				
Wild Horses and Burros – Desired Outcomes (Goals and Objectives)				
• Maintain, protect, manage, and control a healthy wild horse herd inside the herd management area within the appropriate management level to ensure a thriving natural ecological balance, while preserving multiple use relationships with other uses and resources, and making progress towards Standards for Rangeland Health (Standards 1 and 5). • Maintain a wild horse herd that exhibits a diverse age structure, genetic diversity, and any characteristics unique to the Pryor horses. • Manage wild horses within a balanced program which considers all values without impairment to the productivity of the land.				
Wild Horses and Burros – Management Common to All Alternatives				
	Initially, the wild horse population would be managed within a population range between 90 to 120 wild horses.			
	Maintain a wild horse herd that exhibits a diverse age structure, genetic diversity, and any characteristics unique to the Pryor horses.			
	Unless otherwise specified, implementation level planning through a Herd Management Area Plan (HMAP) or other activity level plans would identify and set objectives for, but not limited to, the following: herd composition, animal characteristics, genetics, and habitat development needs; soil, vegetation, and watershed characteristics; and establishment and adjustment to appropriate management level (AML).			
	Appropriate management levels would be adjusted as needed to ensure a thriving natural ecological balance through monitoring and data collection including but not limited to: forage utilization, trend, ecological condition, precipitation data, rangeland health assessments, population inventory, climate or habitat changes, and range availability.			
Wild Horses and Burros – Management Actions by Alternative				
	Herd Management Area Establishment			
	Manage wild horses on approximately 24,595 acres of BLM-administered lands (37,494 acres all ownerships) (Map 31). Keep the administrative pastures closed as well as areas adjacent to private lands to reduce public/private conflicts.	Manage wild horses only within the boundaries of the original Secretarial Orders from 1968 and 1969 (23,204 acres BLM-administered lands and 31,153 acres all ownerships) (Map 32). The rest of the Herd Area would be closed to wild horse use in order to maximize protection of plant species of concern, sub-alpine meadows and to protect wild horses from commercial uses.	Manage wild horses on approximately 28,622 acres of BLM-administered lands (44,855 acres all ownerships) (Map 33). Designate the entire Herd Area as the Herd Management Area.	Manage wild horses on approximately 27,094 acres of BLM-administered lands (39,994 acres all ownerships) (Map 34). Designate the closed portions of the Herd Area known as the administrative pastures to be included in the Herd Management Area. Due to private property conflicts, the "buffer" area would remain closed.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Herd Characteristics			
	Within an HMAP, herd structure would be managed for all representations in the herd, not allowing specific colors or bloodlines to dominate from management manipulation.	Within an HMAP, herd structure would be managed through natural selection with no promotion of any characteristics or preservation of colors or bloodlines.	Within an HMAP, herd structure would be managed for and to promote the public perception of the quintessential Pryor horse that is Dun or Grulla with striping and line back markings.	Same as A
	Appropriate Management Levels			
	Appropriate management level (AML) determination would be made within the context of having the maximum amount of wild horses the range can sustain while preventing deterioration.	Appropriate management level (AML) determination would be made within the context of having a minimum amount of wild horses in order to improve ecological conditions, protecting other resources and individual animals.	Same as A	Same as A
	Wild Horse Habitat			
	Range improvements would be authorized through site-specific analysis. Vegetation conversion treatments would not be allowed.	Range improvements and/or vegetation treatments would not be authorized in wild horse habitat; only natural processes would be allowed to occur.	Maximize the amount of acres available for vegetation treatments and/or water developments that potentially increase forage availability for wild horses that is compliant with other multiple-use decisions and restrictions.	Same as C
Cultural and Heritage Resources				
Management of cultural resources is directed primarily, but not exclusively, by two laws: the National Historic Preservation Act of 1966, as amended, and the Archaeological Resources Protection Act of 1979. The National Historic Preservation Act requires management and enhancement of significant historic properties and the Archaeological Resources Protection Act requires protection of archaeological resources (sites and objects of 100 years or more in age). The Federal Land Policy and Management Act directs the Bureau of Land Management to manage public lands on the basis of multiple use and to "protect the quality of historical resources and archaeological values." This act provides for the periodic inventory of public lands and resources. Following Washington Office Instruction Bulletin 2002-101, the BLM would allocate all cultural resources in the Billings Field Office, whether already recorded or projected to occur on the basis of existing data synthesis (including cultural landscapes), or not projected to occur but later identified through inventory, to the following uses according to their nature and relative preservation value. *These use allocations pertain to cultural resources, not to areas of land.* Each resource would be assigned to a primary use category, but that assignment would not preclude management from other use categories. The six types of use allocations are: Scientific Use, Conservation for Future Use, Traditional Use, Public Use, Experimental Use, and Discharged from Management. See the Cultural category in the glossary for cultural use allocation definitions and Appendix F for management direction of site types.			
Cultural and Heritage Resources – Desired Outcomes (Goals and Objectives)				
• Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations (FLPMA, Section 103 (c), 201(a) and (c); National Historic Preservation Act, Section 110(a); Archaeological Resources Protection Act, Section 14(a)).				

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
• Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses (FLPMA Section 203(c), NHPA 106, 110(a) (2)) by ensuring that all authorizations for land use and resource use would comply with the NHPA Section 106. • Cultural resources on BLM-administered land would be protected and maintained in stable condition. Appropriate management actions would be determined after evaluation and allocation of cultural resource use categories through cultural resource project plans. • Maintain viewsheds of important cultural resources whose settings contribute significantly to their scientific, public, traditional, or conservation values. • Provide and promote research opportunities that would contribute to our understanding of the ways humans have used and influenced the landscape. • Manage historic trails to realize their educational, recreational, and scientific values. • Enhance public understanding of, and appreciation for, cultural resources through educational outreach and heritage tourism opportunities.				
Cultural and Heritage Resources – Management Common to All Alternatives				
	Evaluate cultural resources according to National Register criteria (36 CFR Part 60.4) and assign cultural resources to appropriate use categories as the basis for management decisions (see Appendix F)			
	All sites determined eligible to the National Register of Historic Places would be allocated and managed for Scientific, Public, Traditional, Experimental, and/or Conservation for Future Use. However, if another use becomes evident or proposed after use allocation has occurred, the use allocation may be changed without a plan amendment.			
	All sites determined not eligible to the National Register of Historic Places and not containing antiquities or archaeological resources would be allocated and managed as Discharged from Management Use			
	Cremains scattering would not be permitted on prehistoric or historic archaeological sites, buildings, or structures, Native American burials, sacred sites, or traditional cultural use areas.			
	Design and maintain facilities to preserve the visual integrity of cultural resources, settings, and cultural landscapes consistent with VRM objectives established in the RMP			
	Where feasible, acquire properties adjacent to public lands through donation, exchange, or purchase that contain significant cultural resources including, but not limited to, those properties eligible for inclusion on the NRHP			
	A lease notice (consistent with the Montana guidance for cultural resource protection related to oil and gas) would continue to be issued to ensure that leased lands are examined to determine if cultural resources are present and to specify mitigation measures.			
	A CSU stipulation would be attached to oil and gas leases around the Lake Mason National Wildlife Refuge to protect cultural resources.			
	A CSU stipulation for NHPA, AIRFA, NAGPRA and E.O. 13007 would be attached to all oil and gas leases.			
Cultural and Heritage Resources – Management Common to Action Alternatives				
	Allowed	A Lease Notice for sacred sites and Historic Properties would be attached to oil and gas leases.		
	Allowed	No Surface Occupancy (NSO) stipulation would be attached to leases for cemeteries or individual gravesites located on private surface/federal mineral estate (known cemeteries include: Annherer Spring Grave, Sunrise Cemetery, Castle Butte Cemetery, and Cabin Creek Cemetery)		
	Allowed	NSO within ½ mile of cultural properties of particular importance to Native Americans (TCPs, traditional use areas, burials, plant gathering locations, etc.)		

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Cultural and Heritage Resources – Management Actions by Alternative				
	The following sites include a small buffer zone for protection from oil and gas actions (NSO): • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Young's Point • Bighorn Mouth North Cliffs Rock Art Site • Gyp Springs Site • Hoskins Basin Archaeological District NSO within sites or areas designated for conservation use, public use or socio-cultural use.	The following sites, districts, or areas would not be available for oil and gas leasing, exploration, and/or development (NL): • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Bighorn Mouth North Cliffs Rock Art Site • Gyp Springs Site • Hoskins Basin Archaeological District NSO within sites or areas designated for conservation use, public use, scientific use, or traditional use.	NSO for oil and gas leasing, development and/or exploration on the following sites, districts, or areas: • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Bighorn Mouth North Cliffs Rock Art • Gyp Springs Site • Hoskins Basin Archaeological District • Bandit Site (48BH0460) NSO within eligible sites or areas designated for conservation use, public use, scientific use, or traditional use, including those areas determined to be traditional cultural properties and/or designated for traditional use.	Same as C
	No current management decision provided	NSO within ½ mile for oil and gas leasing, exploration and/or development on the following historic trails: • Bridger Cut-Off Trail • Meeteetse Trail	Oil and gas leasing, exploration and development would be allowed within ¼ mile of the following historic trails with stipulations (CSU): • Bridger Cut-Off Trail • Meeteetse Trail	Same as C
	Parameter – Cultural Resource Use Allocation – Rock Art Sites			
	The following sites would be allocated to conservation or socio-cultural use: • Steamboat Butte • Paul Duke Site • Petroglyph Canyon ACEC • Castle Butte ACEC • Young's Point • Weatherman Draw ACEC	Allocate and manage all National Register eligible rock art sites for Conservation, Traditional, and/or Scientific Use. No interpretative sites would be developed	Allocate and manage all National Register eligible rock art sites for Conservation, Traditional, and/or Public Use. Up to four sites would be developed for interpretative use.	Allocate and manage all National Register eligible sites for Conservation, Scientific, Traditional, and /or Public Use. Interpretative sites would be developed as appropriate.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	• Bighorn Mouth North Cliffs Rock Art Site			
	Parameter – Cultural Resource Use Allocation – Rockshelter/Cave Sites			
	The following sites would be allocated to conservation or socio-cultural use: • Steamboat Butte • Petroglyph Canyon NR Site • Stark Bison Kill Site • Young's Point • Dryhead Overlook site • Weatherman Draw • Sykes Spring Site	Allocate and manage all National Register eligible sites for Conservation and/or Traditional Use. No interpretative sites would be developed	Allocate and manage all National Register eligible sites to Conservation, Scientific, and/or Public Use. Up to five sites would be developed for interpretative use.	Allocate and manage all National Register eligible sites for Conservation, Scientific, Traditional, and /or Public Use. Interpretative sites would be developed as appropriate.
	Parameter – Cultural Resource Use Allocation – Aboriginal Occupation Sites and Structures (prehistoric & protohistoric)			
	The following sites would be allocated to conservation or socio-cultural use: • Steamboat Butte • Paul Duke Site • Petroglyph Canyon NR Site • Demi-John Flat NR District • Castle Butte • Stark Bison Kill Site • Young's Point • Gyp Springs Site • Dryhead Overlook site • Weatherman Draw • Sykes Spring Site • Bruder-Janich Site	Allocate and manage all National Register eligible sites to Scientific, Traditional, and/or Conservation Use. No interpretative sites would be developed	Allocate and manage all National Register eligible sites to Scientific Public and/or Conservation Use. Up to four interpretative sites would be developed.	Allocate and manage all National Register eligible sites to Scientific Public, Traditional, and/or Conservation Use. Interpretative sites would be developed as appropriate.
	Parameter – Cultural Resource Use Allocation – Lithic Scatters/Workshops			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible sites to Conservation Use.	Allocate and manage all National Register eligible sites to Conservation and or Scientific Use.	Same as C

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Parameter – Cultural Resource Use Allocation – Communal Kill Sites			
	The following sites would be allocated to conservation or socio-cultural use: • Steamboat Butte • Castle Butte • Stark Bison Kill Site • Young's Point • Sykes Spring Site	Allocate and manage all National Register eligible sites to Conservation and/or Scientific Use. No interpretative sites would be developed	Allocate and manage all National Register eligible sites to Scientific, Public, and/or Experimental Use. Up to five interpretative sites would be developed.	Allocate and manage all National Register eligible sites to Conservation, Scientific, and/or Public Use. Interpretative sites would be developed as appropriate.
	Parameter – Cultural Resource Use Allocation – Aboriginal trails			
	Manage for future Cultural Resource Use Allocations. Allocate and manage Demi-John Flat NR District.	Allocate and manage all National Register eligible sites to Conservation and/or Traditional Use. No interpretative sites would be developed	Allocate and manage all National Register eligible sites to Conservation and/or Public Use. Up to three interpretative sites would be developed.	Allocate and manage all National Register eligible sites to Conservation, Traditional, and/or Public Use. Interpretative sites would be developed as appropriate
	Parameter – Cultural Resource Use Allocation – Lithic Procurement Sites/Quarries (bedrock and surface)			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible lithic procurement sites/quarries to Conservation and/or Traditional Use	Allocate and manage all National Register eligible lithic procurement sites/quarries to Conservation, Traditional, and/or Scientific Use.	Same as C
	Parameter – Cultural Resource Use Allocation – Vision Quest Sites/Sacred Sites/TCPs/Ethnohistoric Sites			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible sites to Conservation and/or Traditional Use	Same as B	Same as B
	Parameter – Cultural Resource Use Allocation – Historic Features			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible sites to Conservation and/or Scientific Use	Allocate and Mange all National Register eligible sites to Conservation and/or Public Use.	Same as B
	Parameter – Cultural Resource Use Allocation – Historic Roads/Trails			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible resources for Scientific, Conservation, and/or Public Use. No interpretative sites would be developed.	Allocate and manage all National Register eligible resources for Scientific, Conservation, and/or Public Use. Interpretative sites would be developed at all sites allocated and managed for	Allocate and manage all National Register eligible resources for Scientific, Conservation, and/or Public Use. Interpretative sites would be developed as appropriate.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
			Public Use.	
	Parameter – Cultural Resource Use Allocation – Historic Structures and/or Homesteads			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible sites to Scientific and/or Conservation Use. No interpretative sites would be developed	Allocate and manage all National Register eligible sites with standing structures to Public Use. Allocate and manage all National Register eligible sites to Scientific, Conservation, and/or Public Use. Up to three interpretative sites would be developed.	Allocate and manage all National Register eligible sites to Scientific, Conservation, and/or Public Use. Interpretative sites would be developed as appropriate.
	Parameter – Cultural Resource Use Allocation – Historic Industrial/Development (mines, oil/gas, etc.)			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible sites to Conservation Use.	Allocate and manage all National Register eligible sites to Conservation and/or Scientific Use.	Same as C
	Parameter – Cultural Resource Use Allocation – Historic Structures and/or Homesteads			
	Manage for future Cultural Resource Use Allocations	Allocate and manage all National Register eligible sites to Scientific and/or Conservation Use. No interpretative sites would be developed	Allocate and manage all National Register eligible sites with standing structures to Public Use. Allocate and manage all National Register eligible sites to Scientific, Conservation, and/or Public Use. Up to three interpretative sites would be developed.	Allocate and manage all National Register eligible sites to Scientific, Conservation, and/or Public Use. Interpretative sites would be developed as appropriate.
	Parameter – Cultural Resource Use Allocation – "Other" Sites			
	Manage for future Cultural Resource Use Allocations	All National Register eligible sites would be allocated and managed for Scientific and/or Conservation Use.	All National Register eligible sites would be allocated and managed for Scientific and/or Conservation Use with public use being monitored.	Same as C
Paleontological Resources				
The BLM has authority to manage and protect paleontological resources under the Paleontological Resources Preservation Act (PRPA) 2009 (P.L. 111-011 Title VI Subtitle D). PRPA directs the BLM to manage, protect, and preserve paleontological resources using scientific principles and expertise as well as provide for public education and awareness, scientific research, curation, and other proactive efforts.				
Paleontological Resources – Desired Outcomes (Goals and Objectives)				
• Identify, manage, and monitor at-risk paleontological resources (scientific values); preserve and protect vertebrate fossils through best science methods; and promote public and scientific use of invertebrate and paleo-botanical fossils. • Manage fossil locales with high scientific value in a stable condition, while allowing appropriate scientific and public use.				

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
• Locate, evaluate, and manage paleontological resources and protect them where appropriate • Facilitate suitable scientific, educational, and recreational uses of fossils • Ensure that significant fossils are not inadvertently damaged, destroyed, or removed from public ownership as a result of surface disturbance or land tenure adjustments				
Paleontological Resources – Management Common to All Alternatives				
	The Potential Fossil Yield Classification (PFYC) system would be used to assess possible resource impacts and mitigation needs for Federal actions involving surface disturbance, land tenure adjustments, and land-use planning			
	Recreational collectors may collect and retain reasonable amounts of common invertebrate and plant fossils for personal, non-commercial use. Surface disturbance must be negligible and mechanized tools cannot be used			
	Vertebrate fossils can be collected only under a permit issued to qualified individuals. Vertebrate fossils include bones, teeth, eggs, and other body parts of animals with backbones, such as dinosaurs, fish, turtles, and mammals. Vertebrate fossils also include trace fossils such as footprints, burrows, gastroliths, and coprolites.			
	Fossils collected under a permit remain the property of the federal government and must be placed in a suitable repository which would be identified at the time of permit issuance			
	Lands identified for disposal or exchange would be evaluated to determine whether such actions would remove significant fossils from federal ownership			
	Where feasible, acquire properties adjacent to public lands through donation, exchange, or purchase that contain significant paleontological resources			
	Surface occupancy and use is prohibited within designated or recorded paleontological sites (NSO)			
Paleontological Resources – Management Actions by Alternative				
	The combination of Lease Stipulations and Lease Terms would mitigate impacts to paleontological resources on a case by case basis.	For oil and gas leasing, exploration, and development occurring within PFYC Class 3 or higher, a lease notice would be attached. Assessment, inventory, and/or mitigation would be required based on PFYC class (Map 35).		
	No current management decision provided	For all surface disturbing activities occurring within PFYC Class 3 or higher units, a stipulation or condition of approval would be included on the permitting document. Assessment, inventory, and/or mitigation would be required based on PFYC class (Map 35).		
	Written information about fossils and hobby fossil collecting would be provided	Written and web-based information would be provided about fossils, hobby collecting, and local interpretative sites	Same as A	Written and web-based information would be developed, maintained, and provided about fossils and to promote visitor education
	Paleontological Resource Use permits for scientific study would be issued	Paleontological Resource Use permits would be issued for scientific study, promoting or supporting investigations in poorly documented areas	Same as A	Paleontological Resource Use permits would be issued for scientific study. BLM would support investigations in lesser known areas and in areas where surface disturbance is occurring or anticipated.
	Collection of common invertebrate and plant fossils for personal, non-commercial use would be allowed	Collection of common invertebrate and plant fossils would be allowed for personal, non-commercial use.	Collection of common invertebrate and plant fossils for personal, non-commercial use would be allowed.	Collection of common invertebrate and plant fossils would be allowed for personal, non-commercial use.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
			Areas for hobby collection would be identified and monitored.	Areas with vertebrate fossils would be closed to common invertebrate and plant fossil hobby collecting unless collection activity is authorized by the BLM.
Visual Resources				
Visual resources are the visible physical features in a landscape defined by landforms, water, vegetation, animals, structures, and other natural or manmade features. The purpose of visual resource management (VRM) program is to manage the visual environment and any potential visual impediments while maintaining the viability of resource programs in the BiFO planning area. Lands are first inventoried using the visual resource inventory (VRI) process in BLM Manual 8410-1, and then assigned visual resource management classes (VRM) which have different management objectives, found in BLM Manual 8431-1. The Billings Field Office goal is to manage public lands for their scenic values while providing for the overall multiple-use and quality of experience to visitors of public lands. Through the VRI process, the Billings Field Office would establish visual management objectives to minimize adverse impacts to the visual resources on the landscape.				
Visual Resources – Desired Outcomes (Goals and Objectives)				
• Manage public lands for their scenic values while providing for the overall multiple-use and quality of experience to visitors of public lands. • Establish visual management objectives to minimize adverse impacts to the visual resources on the landscape. • Maintain the overall integrity of VRM classes, while allowing for modifications to landscapes in those classes, consistent with the established management objectives.				
Visual Resources – Management Common to All Alternatives				
	Manage visual resources according to established guidelines for VRM classes.			
	Use the visual resource contrast rating system during project level planning to determine whether or not proposed activities would meet VRM objectives. Identify appropriate mitigation measures to reduce visual contrasts.			
	Following BLM Handbook 8410-1 and BLM IM 2000-96, the Billings Field office would manage WSAs under VRM Class I objectives to maintain an undeveloped landscape and preserve their natural values.			
	Prepare rehabilitation plans to address landscape modifications on a case-by-case basis.			
Visual Resources – Management Actions by Alternative				
	Manage BLM public lands according to the following Visual Resource Inventory (VRI) classifications (the existing 1984 RMP did not assign visual resource management (VRM) classifications) (Map 38): • VRI Class A 29,843 acres • VRI Class B 12,427 acres • VRI Class B/C 390,068 acres • VRI Class C 816 acres	Manage BLM public lands according to the following VRM class designations (Map 39): • VRM Class I 29,823 acres • VRM Class II 15,688 acres • VRM Class III 388,643 acres • VRM Class IV 0 acres	Manage BLM public lands according to the following VRM class designations (Map 40): • VRM Class I 26,040 acres • VRM Class II 20,498 acres • VRM Class III 387,616 acres • VRM Class IV 0 acres	Manage BLM public lands according to the following VRM class designations (Map 41): • VRM Class I 28,861 acres • VRM Class II 13,648 acres • VRM Class III 391,645 acres • VRM Class IV 0 acres
	Oil and gas activities would be allowed in VRM Class II areas if the contrasting visual	Surface occupancy or use, surface disturbing activities, and construction of semi-permanent	Same as A	Same as B

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	elements from the actions can be minimized or eliminated (CSU).	and permanent facilities in VRM Class II – IV areas would require special design including location, painting, and camouflage to blend with the natural surroundings and meet the visual quality objectives for each respective class (CSU).		
Fire Ecology and Management				
The BLM goals and objectives are to manage fire and fuels to protect life and property and to protect or enhance resource values and to enhance public awareness and knowledge of hazards associated with fuel accumulation and fire, as well as practical preventive measures especially in the wildland urban interface. The BLM works with the public to ensure a greater understanding about the natural role of fire in the ecosystem and the use of prescribed fire to protect property, reduce fuels, and maintain healthy plant and animal communities. The BLM provides guidance to develop management of wildfires with an emphasis on firefighter and public safety and works to use fire to protect, maintain, and enhance resources; and to function in its ecological role where appropriate. Management actions within the fire program are directed at integrating fire and fuels management across landscape, agency, and ownership boundaries and coordination with fire adapted communities and other government agencies to identify wildfire hazards and create mitigation strategies, as well as providing public education on fire ecology and ecosystem restoration.				
Fire Ecology and Management – Desired Outcomes (Goals and Objectives)				
• Manage wildfire and fuels for the protection of public health, safety, property, and resource values. • Manage hazardous fuels in areas of urban and industrial interface to reduce potential loss due to catastrophic fire. • Maintain desired mix of seral stages within vegetation communities, including desert shrublands, forest and woodlands, grasslands, mountain shrublands, sagebrush (all sub-species), riparian/wetlands and aspen. • Manage vegetation communities through cooperative efforts by restoring natural fire regimes and frequency to the landscape, where appropriate. • Maintain partnerships with the public and interagency cooperators to strengthen coordination of all fire management activities and encourage the creation of fire-safe communities. • Utilize an integrated management technique unless otherwise restricted (defined as prescribed fire, mechanical, chemical, or biological, followed by desired reseeding) to reduce fuels to protect high priority areas or resource values.				
Fire Ecology and Management – Management Common to All Alternatives				
	National fire suppression guidelines and the current Fire Management Plan would be utilized to guide fire suppression techniques on public lands.			
	In the course of fire suppression, a resource advisor would be consulted or assigned to wildfires that involve or threaten public lands.			
	The use of fire suppression chemicals would be limited around areas with rock art and standing structures and other areas with significant cultural resources (including ACECs).			
	Use of wildfire suppression chemicals within 300 feet of waterways would be prohibited.			
	Fuels treatments would be designed to protect or improve resource values.			
	Emergency stabilization and rehabilitation of burned areas would be conducted according to current policy to protect and sustain ecosystems, public health and safety.			
	Prevent the movement of wildfires from the wildlands into the Wildland Urban Interface area (Interagency Strategy for the Implementation of Federal Wildland Fire Management, pg. 28)			
	Due to resource management constraints and considerations (i.e. sage-grouse habitat, other identified T&E issues and culturally sensitive areas), there are approximately 14,000 acres available for restoring natural Fire Regime Condition Classes in Musselshell, Stillwater, Carbon, and Sweet Grass Counties.			

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Fire Ecology and Management – Management Actions by Alternative				
	Use appropriate management response to implement protection objectives in accordance with management objectives based on current conditions and fire location.	The full range of fire management activities would be used to help achieve ecosystem sustainability, including interrelated ecological, economical, and social components. Fire suppression strategies and tactics would be used in the following areas: • Wildland urban interface • Wildland industrial interface • Developed recreation sites • Developed electronics sites of all types In all other areas, fire management strategies and tactics would be determined by (but not limited to) the following: • Firefighter and public safety • Resource values at risk • Proximity to private land • Firefighting resource availability	Fire suppression strategies would be used across the entire planning area. Fire management strategies and tactics would be determined by (but not limited to) the following: • Firefighter and public safety • Resource values at risk • Proximity to private land • Firefighting resource availability	Response to wildfires would be based on ecological, social, economic and legal consequences of the wildfire. Fire management strategies and tactics would be determined by (but not limited to) the following: • Firefighter and public safety • Resource values at risk • Proximity to private land • Firefighting resource availability
	Heavy equipment would not be used to construct fire lines in areas containing cultural resources. Cultural resource specialists or area resource advisors would be consulted for locations of identified areas before use of or anticipated use of heavy equipment. Exceptions may be permitted for protection of human life and/or property. Heavy equipment generally would not be used to construct fire lines in critical winter range. Agency wildlife biologist(s) would be consulted when fires threaten critical winter range. If heavy equipment is used, rehabilitation work on lines would begin immediately after containment.	Tactical constraints would follow: • No heavy equipment would be used within the following areas, except when human safety is at risk: ► Areas of cultural resource sensitivity ► Riparian/wetland habitats ► Big game crucial winter range habitat ► Sage-grouse nesting habitat within proximity of lek sites ► Areas of highly erosive soils In areas not identified as full suppression, heavy equipment usage would be limited to existing roads and trails or immediately adjacent to them. Full Suppression acreage	Tactical constraints would follow: • Heavy equipment use would be allowed in all areas, unless otherwise restricted (e.g., ACECs, WSAs, etc.). • Heavy equipment would not be restricted to roads and trails, except where prohibited (ex: known special status plant sites).	Heavy equipment would not be used to construct fire lines in crucial winter range, habitat of candidate or special status species, riparian/wetlands or in areas of cultural resource sensitivity or other designated areas (e.g., ACECs, WSAs). Exceptions would be permitted for protection of human life, property or other resource values. Cultural Resource Specialists or Resource Advisors would be consulted for locations of identified areas before use of or anticipated use of heavy equipment. If heavy equipment is used, rehabilitation work on lines would begin immediately after containment.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	In areas where a prescribed fire is planned, appropriate fire management would be used if a wildfire is meeting the stated resource management objectives of the prescribed fire project. Management plans would emphasize containment within the Project Area/Allowable area as developed in prescribed fire plans.	Wildfires (natural ignitions) that occur within or adjacent to an area identified for vegetation or fuels treatment would be managed to meet the desired management objectives.	Same as Alternative B.	Same as Alternative B.
	Fire management is categorized into six (6) Fire Management Units (FMUs). There are five (5) Category B FMUs. These areas are where unplanned wildfire is not desired because of current conditions and where an unplanned ignition would have negative effects unless/until some form of mitigation takes place. There is one Category C FMU. This area is where wildfire is desired, but there are significant constraints that must be considered for its use.	Wildfire management (natural ignitions) for resource benefit would be considered for the following areas: • East Pryor ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Pryor Foothills RNA ACEC • Weatherman Draw ACEC • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA	Wildfire management (natural ignitions) for resource benefit would not be authorized.	Wildfire management (natural ignitions) for resource benefit would be considered for the following areas: • East Pryor ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Pryor Foothills RNA ACEC • Weatherman Draw ACEC • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA
	Prescribed burning would be implemented to manipulate vegetation on areas identified for treatment in the range, forestry, and wildlife programs.	Prescribed fire would be allowed on up to 5 percent of BLM administered acres within the planning area to achieve measurable landscape level 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. Prescribed fire would not be allowed in the Greater Sage-Grouse Habitat ACEC, Greater Sage-Grouse PPAs, or RAs.	Prescribed fire would be allowed on up to 5 percent of the percent of BLM administered acres within the planning area to achieve measurable landscape level 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. Prescribed fire would be allowed in Greater Sage-Grouse PPAs and RAs if the activity would benefit sagebrush communities (ex: achieve a diversity of age class).	Same as Alternative C.

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Lands with Wilderness Characteristics				
BLM is required under Section 201 of FLPMA to conduct and maintain a current inventory of natural resources. BLM conducts its wilderness characteristics inventory through the BLM Manual 6301 and incorporates the findings in the RMP through its Manual 6302. These manuals implement Secretarial Order 3310 and incorporates principles from BLM guidance (ex: Organic Act directives) and legal rules developed as part of BLM's original wilderness inventories.				
Lands with Wilderness Characteristics – Desired Outcomes (Goals and Objectives)				
• Protect, preserve, and maintain wilderness characteristics in areas inventoried and found to possess them. • Lands with wilderness characteristics would be managed to maintain: o A high degree of naturalness (where lands and resources are affected primarily by the forces of nature and where the imprint of human activity is substantially unnoticeable); o Outstanding opportunities for solitude (when the sights, sounds, and evidence of other people are rare or infrequent and where visitors can be isolated, alone or secluded from others), and o Outstanding opportunities for primitive and unconfined recreation, where the use of the area would be through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered.			
Lands with Wilderness Characteristics – Management Common to All Alternatives				
	Conduct active restoration activities to remove unnatural features and rehabilitate unauthorized human disturbances. Remove unauthorized facilities consistent with regulations.			
	Monitor for development and disturbances, as well as visitor use, to identify and address potential impacts to wilderness character.			
Lands with Wilderness Characteristics – Management Actions by Alternative				
	Manage 1,925 acres outside of the Bighorn Tack-On and Pryor Mountain WSAs for their wilderness characteristics (Map 42).	Manage for wilderness characteristics the following areas/acres (27,292 acres) (Map 43): • Pryor Mountain Unit Tract 1 – 2,873 acres • Pryor Mountain Unit Tract 2- 497 acres • Pryor Mountain Unit Tract 3 - 143 acres • Pryor Mountain Unit Tract 5 – 512 acres • Pryor Mountain Unit Tract 6 – 1,074 acres • Pryor Mountain Unit Tract 7 – 327 acres • Burnt Timber Unit Tract 1 – 703 acres • Burnt Timber Unit Tract 2 – 5,375 acres • Weatherman Draw Unit – 11,603 acres • Meeteetse Unit Tract 10 – 2,149 acres • River islands – Size unknown • Bad Canyon Unit – 2,036 acres	Manage for wilderness characteristics the following areas/acres (3,379 acres) (Map 44): • Pryor Mountain Unit Tract 2- 497 acres • Pryor Mountain Unit Tract 3 - 143 acres • Burnt Timber Unit Tract 1 – 703 acres • Bad Canyon Unit – 2,036 acres Do not manage for wilderness characteristics the following areas/acres (23,913 acres): • Pryor Mountain Unit Tract 1 – 2,873 acres • Pryor Mountain Unit Tract 5 – 512 acres • Pryor Mountain Unit Tract 6 – 1,074 acres	Manage for wilderness characteristics the following areas/acres (13,653 acres) (Map 45): • Pryor Mountain Unit Tract 1 – 2,873 acres • Pryor Mountain Unit Tract 2- 497 acres • Pryor Mountain Unit Tract 3 - 143 acres • Pryor Mountain Unit Tract 5 – 512 acres • Pryor Mountain Unit Tract 6 – 1,074 acres • Pryor Mountain Unit Tract 7 – 327 acres • Meeteetse Unit Tract 10 – 2,149 acre • Burnt Timber Unit Tract 1 – 703 acres • Burnt Timber Unit Tract 2 – 5,375 acres

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
			• Pryor Mountain Unit Tract 7 – 327 acres • Burnt Timber Unit Tract 2 – 5,375 acres • Meeteetse Unit Tract 10 – 2,149 acre • River islands – Size unknown • Weatherman Draw – 11,603 acres	Do not manage for Wilderness characteristics the following areas/acres (13,639 acres): • River islands – Size unknown • Weatherman Draw – 11,603 acres • Bad Canyon Unit – 2,036 acres
	Currently the BiFO has the following management prescriptions in place: • VRM Class II • Closed to motorized OHV use • Closed to oil and gas leasing, exploration and development (NL) • Closed to solid mineral leasing • Closed to disposal of mineral materials • Closed and recommend for withdrawal from mineral entry • Exclusion area for new ROWs • Closed to permitted commercial and personal use wood cutting and seed collection • Vegetation and fuel treatments using prescribed fire would be allowed	Lands with wilderness characteristics would be managed as follows: • VRM Class I • Closed to motorized OHV use • Closed to oil and gas leasing, exploration and development (NL) • Closed to solid mineral leasing • Closed to disposal of mineral materials • Closed and recommend for withdrawal from mineral entry • Exclusion area for new ROWs • Closed to permitted commercial and personal use wood cutting and seed collection • Vegetation and fuel treatments using prescribed fire would be allowed • Surface disturbing and disruptive activities would be allowed only if the activity does not impair the resource values and/or wilderness characteristics, with the exception of emergency operations and the exercise of valid existing rights. • Closed to new structures unrelated to preserving the wilderness characteristics • Vegetation treatments to control expansion of invasive exotic species would be allowed	Lands with wilderness characteristics would be managed as follows: • VRM Class II • Closed to motorized OHV use, with the exception of the Meeteetse Spires Unit, which would be limited to authorized motorized OHV use only. • Closed to oil and gas leasing, exploration and development (NL) • Closed to solid mineral leasing • Closed to disposal of mineral materials • Closed and recommend for withdrawal from mineral entry • Exclusion area for new ROWs • Closed to permitted commercial and personal use wood cutting and seed collection • Vegetation and fuel treatments using prescribed fire would be allowed • Surface disturbing and disruptive activities would be allowed only if the activity does not impair the resource values and/or wilderness characteristics, with the exception of emergency operations and the exercise of valid existing rights. • Closed to new structures unrelated to preserving the wilderness characteristics • Vegetation treatments to control expansion of invasive exotic species would be allowed	

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Note for Lands with Wilderness Characteristics: BiFO interprets the statement from the BiFO 1984 ROD *("managed as WSA")* as the intent for BiFO to administratively apply similar management prescriptions (avoid surface disturbing activities and permanent facilities, close the lands to motorized uses, permit grandfathered and prior-existing uses, and in general to continue those land uses which maintain the land suitability for potential Wilderness designation by Congress.				
Cave and Karsts Resources				
Cave and karsts resources are managed under 43 CFR, part 37, cave management, BLM MOU WO-250-2007-01 , The latest policy guidance on Cave Safety Standards and the Federal Cave Resources Protection Act of 1988 in order to protect and maintain their biologic, geologic, mineralogic, paleontological, hydrologic, cultural, educational, scientific, and recreational values.				
Cave and Karsts Resources – Desired Outcomes (Goals and Objectives)				
• Manage all cave resources as mandated by the Federal Cave Resources Protection Act of 1988, the National Environmental Policy Act, and the Endangered Species Act and other applicable laws and regulations to protect unique, nonrenewable, and fragile biological, geological, hydrological, cultural, paleontological, scientific and recreational values for present and future users. • Cave and karst resources would be managed to provide opportunities for scientific research, educational study, and recreational experiences which are compatible and consistent with protection of all biologic and non-biologic resources associated with caves and karst landforms.				
Cave and Karsts Resources – Management Common to All Alternatives				
	Secure, protect, and preserve natural cave features and conditions.			
	Geo-caching would not be allowed in caves or at cave entrances.			
	Scientific and research use of caves requires a written proposal explaining the purpose of the research, who would be conducting it, how long it is expected to take, if it would require any collection of specimens, and what kind of reporting would be done.			
	Manage all cave and karst formations in compliance with the *National Plan for assisting state, federal agencies, and tribes in managing White-Nosed-Syndrome in Bats* (US Fish and Wildlife Service, May 2011).			
	Evaluate all known caves in the region to determine if they satisfy the six criteria of significance. The *Code of Federal Regulations* at 43CFR, Part 37.11 (c) lists the six criteria that are used to evaluate cave significance.			
	Manage recreational use of all known caves under a cave management plan and address: protecting and maintaining cave resources, including wildlife species and habitat in and around caves, by interpreting, restricting, and/or prohibiting nonconforming uses; enhancing user experiences and opportunities by managing use at levels compatible with resource carrying capacity and protection. Management actions proposed to be implemented also could include installation of cave gates, implementation of a visitor use permit system, the development of new visitor public education materials; systematic inventories of cave resources; restoration of damaged habitat; and monitoring of cave conditions and the quality of visitor recreational experiences.			
	Mystery Cave, already designated as a significant cave, located near the Big Horn Tack-On WSA, is recommended for withdrawal from mineral entry and No Lease for oil and gas leasing, exploration, and/or development.			
Cave and Karsts Resources – Management Actions by Alternative				
	No current management decision provided.	No surface disturbing or disruptive activities within ½ mile of cave entrances.	No surface use restrictions.	Surface disturbing or disruptive activities within ¼ mile of cave entrances may be allowed if the activity benefits the desired

Table 2-6.1 Detailed Table of Alternatives (Physical, Biological, and Cultural / Heritage Resources)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
				outcome of this resource.
	No current management decision provided	Oil and gas leasing, exploration and/or development within ½ mile of cave entrances would not be allowed (NSO).	Cave and karst areas would be inventoried prior to oil and gas leasing, exploration and/or development. An approved mitigation plan would be required to avoid impacts to cave resources (CSU).	Same as C
	No current management decision provided	Cave and karst resources would be closed to locatable minerals and recommended for withdrawal from mineral entry; closed to solid leasable development and mineral material sales.	Inventory of cave and karst areas would be required prior to surface-disturbing activities. Cave and karst resources would be open to mineral development with an approved mitigation plan that protects resource values.	Same as C
	No current management decision provided	Cave and karst areas would be managed as a ROW exclusion area.	Cave and karst areas would be managed as ROW avoidance areas.	Same as C

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Energy and Mineral Resources: Solid Leasables (including Coal)				
The BLM goals and objectives for coal resources are to make federal solid mineral resources available for exploration and acquisition consistent with other resource goals. In accordance with existing laws and regulations, BLM-administered public lands open to solid mineral leasing would be identified. The management actions listed below are the various restrictions and constraints to the development of mineral resources.				
Energy and Mineral Resources: Coal – Desired Outcomes (Goals and Objectives)				
• Make federal solid mineral resources available for exploration and acquisition consistent with other resource goals. • Identify the public lands open to solid minerals leasing in accordance with existing laws and regulations (43 CFR 3400 and 3500).				
Energy and Mineral Resources: Coal – Management Common to All Alternatives				
	BLM would consider proposals for developing leasable minerals (coal, phosphate, sodium, potash, sulfur, oil shale, native asphalt, and solid and semi-solid bituminous rock) under the administration of the federal government on a case-by-case basis. Site specific environmental analysis would be required to lease these minerals.			
	BLM would allow exploration and development of solid minerals as authorized under the 1920 and 1947 Mineral Leasing Acts.			
	Prospecting permits would be available for all land not closed to mineral leasing in conformance with 43 CFR 3500.			
	Terms and conditions would be applied to mining activities to meet land health standards for uplands, riparian areas and wetlands, water quality, air quality, and native plant and animal species (see BMPs in Appendix B and Greater Sage-grouse Appendices AA and AB).			
Energy and Mineral Resources: Coal – Management Actions by Alternative				
	The following areas are closed to solid leasable mineral development (29,466 acres): • Pompeys Pillar NM • Four Dances ACEC • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Process lease by application (LBAs) for new coal leases by applying the coal screening process to the application. The coal screening process results would determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis would be required prior to leasing. The existing RMP (BLM 1984) coal-	No new coal leasing would be considered in the planning area. The following areas would be closed to solid leasable mineral leasing and development (211,485 acres): • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Lands with wilderness characteristics • Bridger Fossil Area ACEC • East Pryor ACEC • Four Dances ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM and ACEC • Pryor Foothills RNA/ACEC	The following areas would be closed to solid mineral leasing and development (170,276 acres): • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA. If Twin Coulee WSA is released from further consideration, the area may be open for solid mineral leasing and development. • Lands with wilderness characteristics • Bridger Fossil Area ACEC • Four Dances ACEC • Pompeys Pillar NM and ACEC • Stark Site ACEC	The following areas would be closed to solid mineral leasing and development (200,539 acres): • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA. If Twin Coulee WSA is released from further consideration, the area may be open for solid mineral leasing and development. • Lands with wilderness characteristics • Bridger Fossil Area ACEC • East Pryor ACEC • Four Dances ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM and ACEC

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	screening management decisions are current and relevant to the application area.	• Stark Site ACEC • Weatherman Draw ACEC • Cave and karst areas		• Pryor Foothills RNA/ACEC • Weatherman Draw ACEC
	No current management decision provided	Within Greater Sage-Grouse PPAs (including the Alternative B Greater Sage-Grouse Habitat ACEC) and RAs solid mineral leasing (coal) would only be allowed with the following lease stips: • Mining may only occur via sub-surface methods • All mine related appurtenant facilities would be placed outside of the Priority Protection Habitat		
	No current management decision provided	• Remainder of Planning Area: Process lease by application (LBAs) for new coal leases by applying the coal screening process to the application. The coal screening process results would determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis would be required prior to leasing. The existing RMP (BLM 1984) coal-screening management decisions are current and relevant to the application area.		
Energy and Mineral Resources – Fluid Minerals				
The BLM goal for management of oil and gas resources within the Billings Field Office is to provide opportunities for exploration and development of fluid mineral resources on available public lands. This includes providing opportunities for exploring, leasing, and developing conventional oil and gas, coal bed natural gas, and geothermal resources while applying the appropriate lease stipulations, to varying degrees by alternative as indicated below, and conditions of approval and the project level stage, to mitigate environmental impacts from development and providing opportunities for geophysical (e.g. seismic) exploration for oil and gas subject to the appropriate mitigating measures. The BLM identifies opportunities for leasing and development by alternative. Actions under "Management Common to All Alternatives" as well as Appendix D sets the framework for the fluid minerals program.				
Energy and Mineral Resources – Fluid Minerals – Desired Outcomes (Goals and Objectives)				
• Provide opportunities for exploration and development of fluid mineral resources on available public lands. • Provide opportunities for exploring, leasing, and developing conventional oil and gas, coal bed natural gas, and geothermal resources while applying the appropriate lease stipulations and conditions of approval to mitigate environmental impacts from development. • Provide opportunities for geophysical (e.g. seismic) exploration for oil and gas subject to the appropriate mitigating measures.				
Energy and Mineral Resources – Fluid Minerals – Management Common to All Alternatives				
	Federal oil and gas leasing authority for public lands is found in the Mineral Leasing Act of 1920, as amended; and for acquired lands in the Acquired Lands Leasing Act of 1947, as amended. Leasing of federal oil and gas is affected by other acts such as the National Environmental Policy Act of 1969, the National Historic Preservation Act of 1966, FLPMA (1976), the Wilderness Act of 1964, the Endangered Species Act of 1973, as amended, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. Regulations and other guidance governing federal oil and gas leasing and lease operations are contained in 43 CFR Group 3100, Onshore Operating Orders, Notices to Lessees, and BLM handbooks manuals and instruction memorandums. Regulations governing geophysical exploration are found at 43 CFR 3150.			
	All public lands available for oil and gas leasing would be offered first by competitive bid at an oral auction.			
	Appropriate stipulations would be applied at the time of leasing.			
	Areas where oil and gas development would coexist with other resource uses would be open to leasing under standard lease terms or with added stipulations. Stipulations are a part of the lease only when environmental and planning records show the need for them. Three types of stipulations describe how lease rights are modified: no surface occupancy, timing limitation (seasonal restriction), and controlled surface use. (For descriptions, see Leasing Process in the Oil and Gas section of Appendix D – Fluid Mineral**s**) Stipulations may be changed by application of waivers, exceptions, or modifications. The decision whether to grant waivers, exceptions, or modifications generally occurs during the Application for Permit to Drill approval process. If the authorized officer determines the change to be substantial, the preferred alternative would be subject to a 30-day public review period. Waivers are a			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	permanent exemption from a lease stipulation. This occurs when the resource does not require the protection of stipulation. Exceptions are granted on a case-by-case basis. Each time the lessee applies for an exception, the resource objective of the stipulation must be met. Modifications are fundamental changes to the provisions of a lease stipulation either temporarily or for the term of the lease.			
	An oil and gas lease grants the lessee the right to explore for, extract, remove, and dispose of oil and gas deposits that may be found on the leased lands. The lessee may exercise the rights conveyed by the lease, subject to lease terms and any lease stipulations (modifications of the lease), and permit approval requirements.			
	The terms of existing oil and gas leases cannot be changed by the decisions in this document. When the lease expires, the area would be managed for oil and gas according to the decisions reached in this document.			
	For federal oil and gas where the surface is managed by another federal agency, the BLM would consult with that agency before issuing leases. In areas where oil and gas development may conflict with other resources, the areas may be closed to leasing in accordance with decisions made from this document. Regulations at part 43 CFR 3100.0-3(d); the Secretary's general authority to prevent the waste and dissipation of public property; and the Attorney General's Opinion of April 2, 1941 (Vol. 40 Op. Atty. Gen 41) allow the BLM to lease lands that are otherwise unavailable for leasing if oil and gas is being drained from such lands. If the unavailable lands were under the jurisdiction of another agency, leasing of such lands would only occur following consultation, and consent if necessary, from the surface managing agency.			
	On Bureau of Reclamation or Corps of Engineers lands, in addition to the resource specific stipulations under each alternative (e.g., wildlife, recreation); stipulations that are recommended by the Bureau of Reclamation or Corps of Engineers would be used (see Oil and Gas section in Appendix D – Fluid Minerals).			
	Lands unavailable under this RMP (Table 2-4) would be leased only if a state or fee well is proposed or completed within the same spacing unit, or if the lands are within a producing unit. These lands would be leased with a no surface occupancy and no subsurface occupancy stipulation with no waiver, modification or exception provisions. There would only be a paper transaction with no physical impacts on the unavailable lands. There would be no exploration or development (drilling or production) within the unavailable lands. After issuance of a lease, the lease would be committed to a communitization agreement and the United States would then receive revenue in proportion to its acreage interest as it bears to the entire acreage interest committed to the agreements.			
	Additional information can be provided to the lessee in the form of a lease notice. This notice does not place restrictions on lease operation, but does provide information about applicable laws and regulations, and the requirements for additional information to be supplied by the lessee.			
	After lease issuance, the lessee may conduct lease operations with an approved permit. Proposed drilling and associated activities must be approved before beginning operations. The operator must file an Application for Permit to Drill or Sundry Notice that must be approved according to (1) lease stipulations, (2) Onshore Oil and Gas Order, and (3) regulations and laws. (See Permitting in the Oil and Gas section of Appendix D– Fluid Minerals).			
	Follow BLM Manual 6330 guidance for mineral leasing in WSAs as appropriate. All WSAs would be closed to new oil and gas leases.			
	Oil and gas geophysical activity which is administered by the BLM is governed by regulations found at 43 CFR Subparts 3150, 3151 and 3154. Additional guidance is found in BLM Manual Section 3150 and Handbook 3150. For additional information on geophysical operations and the BLM's procedures and regulations see the Geophysical Operations portion of the oil and gas section of the Appendix D - Fluid Minerals. The BLM would review Notices of Intent to Conduct Geophysical Exploration in the planning area and develop appropriate mitigation measures so as not to create undue and unnecessary degradation. A site-specific environmental analysis would be prepared for each NOI filed.			
	Lands in the planning area would be available for geothermal leasing, unless located within wilderness or WSAs or in instances where it is determined that issuing the lease would cause unnecessary or undue degradation to public lands or resources. Other areas that would be made unavailable are listed in the Record of Decision and RMP Amendments for Geothermal Leasing in the Western United States (December, 2008) which is incorporated in this RMP. A site-specific environmental analysis would be prepared as needed should interest be expressed in exploring for or developing geothermal resources in the planning area. This analysis would address the application of stipulations and develop any additional mitigating measures over and above the lease stipulations required.			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Stipulations developed in this document for oil and gas leases would be applied to any geothermal lease issued if appropriate. If geothermal exploration and production activity is sufficiently different from oil and gas, the stipulations developed would be modified.			
	Energy and Mineral Resources – Fluid Minerals – Management Actions by Alternative			
	Oil and Gas			
	Manage 264,534 acres as open to leasing, subject to standard lease terms (Map 50)	Manage 67,726 acres as open to leasing, subject to standard lease terms (Map 51)	Manage 126,732 acres as open to leasing, subject to standard lease terms (Map 52)	Manage 6,158 acres as open to leasing, subject to standard lease terms (Map 53)
	Manage 336,453 acres as open to leasing subject to moderate constraints (CSU/TL stipulations) (Map 54).	Manage 326,016 acres as open to leasing subject to moderate constraints (CSU/TL stipulations) (Map 55).	Manage 419,284 acres as open to leasing subject to moderate constraints (CSU/TL stipulations) (Map 56).	Manage 336,753 acres as open to leasing subject to moderate constraints (CSU/TL stipulations) (Map 57).
	Manage 32,595 acres as open to leasing subject to major constraints (NSO) (Map 54).	Manage 28,110 acres as open to leasing subject to major constraints (NSO) (Map 55).	Manage 64,135 acres as open to leasing subject to major constraints (NSO) (Map 56).	Manage 263,185 acres as open to leasing subject to major constraints (NSO) (Map 57).
	Manage 39,730 acres as closed to leasing in the following areas (NL) (Map 54): **Non-Discretionary:** • Pompeys Pillar NM • Big Horn Tack-on WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA **Discretionary:** • Bridger Fossil Area ACEC • East Pryor ACEC • Four Dances ACEC • Meeteetse Spires ACEC (965 acres) • Petroglyph Canyon ACEC • PMWHR	Manage 302,713 acres as closed to leasing in the following areas (NL) (Map 55): **Non-Discretionary:** • Pompeys Pillar NM • Big Horn Tack-on WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA **Discretionary:** • Bridger Fossil Area ACEC • East Pryor ACEC • Four Dances ACEC • Grove Creek ACEC • Meeteetse Spires ACEC (965 acres) • Petroglyph Canyon ACEC • Pryor Foothills RNA ACEC • Weatherman Draw ACEC (4,986 acres) • PMWHR • Steamboat Butte • Bruder-Janich Site • Paul Duke Site	Manage 65,891 acres as closed to leasing in the following areas (NL) (Map 56): **Non-Discretionary:** • Pompeys Pillar NM • Big Horn Tack-on WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA **Discretionary:** • East Pryor ACEC • Four Dances ACEC • Meeteetse Spires ACEC (965 acres) • PMWHR • Lands with wilderness characteristics	Manage 72,915 acres as closed to leasing in the following areas (NL) (Map 57): **Non-Discretionary:** • Pompeys Pillar NM • Big Horn Tack-on WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA **Discretionary:** • Bridger Fossil Area ACEC • East Pryor ACEC • Four Dances ACEC • Meeteetse Spires ACEC (965 acres) • Petroglyph Canyon ACEC • Weatherman Draw ACEC (4,986 acres) • PMWHR • Lands with wilderness characteristics

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		• Demi-John Flat NR District • Bighorn Mouth North Cliffs Rock Art Site • Gyp Springs • Site Hoskins Basin Archaeological District • Lands with wilderness characteristics • State Wildlife Management Areas, Fishing Access sites, and State Parks • WSR-suitable segments • Greater Sage-Grouse Habitat ACEC (Sage –grouse PPAs)		
	No similar action	Unitization would be required when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize impacts to sage-grouse according to the Federal Lease Form 3100-11, sections 4 and 6	No similar action	No similar action
	No similar action	For development within sage-grouse PPAs, BLM would require a full reclamation bond specific to the site. Insure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000, Hagen et al. 2007) that would result in full restoration. Base the reclamation costs on the assumption that contractors for the BLM would perform the work.	No similar action	No similar action
	Geophysical exploration			
	Geophysical exploration would not be allowed in the following areas: • Pompeys Pillar NM & ACEC • East Pryor Mountain ACEC • Four Dances ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC • Stark Site ACEC	Geophysical exploration would not be allowed in the following areas: • Pompeys Pillar NM & ACEC • East Pryor ACEC • Four Dances ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC	Geophysical exploration would not be allowed in the following areas: • Pompeys Pillar NM & ACEC • East Pryor ACEC • Four Dances ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC • Stark Site ACEC	Geophysical exploration would not be allowed in the following areas: • Pompeys Pillar NM & ACEC • East Pryor ACEC • Four Dances ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC • Pryor Foothills RNA ACEC

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	• Weatherman Draw ACEC • Within ½ mile of bald and golden eagle nest sites which have been active within the past 7 years and within bald and golden eagle nesting habitat in riparian areas. • Within ½ mile of ferruginous hawk nest sites which have been active within the past 2 years. • Within 1 mile of peregrine falcon nesting sites. • Within ½ mile of raptor nests (stipulations for peregrine, ferruginous and bald and golden eagles noted above) from March 1 to August 1 which have been active within the last 2 years. • Bighorn Sheep Habitat	• Pryor Foothills RNA ACEC • Stark Site ACEC • Weatherman Draw ACEC • Within 1mile of bald and golden eagle nest sites which have been active within the past 7 years and within bald and golden eagle nesting habitat in riparian areas. • Within ½ mile of ferruginous hawk nest sites which have been active within the past 2 years. • Within 1 mile of peregrine falcon nesting sites. • Within ½ mile of raptor nests (peregrine, ferruginous and bald and golden eagles noted above) from March 1 to August 1 which have been active within the last 2 years. • Bighorn Sheep Habitat	• Weatherman Draw ACEC • Within ¼ mile of bald and golden eagle nest sites which have been active within the past 7 years and within bald and golden eagle nesting habitat in riparian areas. • Within 300 feet of ferruginous hawk nest sites which have been active within the past 2 years. • Within ¼ mile of peregrine falcon nesting sites. • Within ¼ mile of raptor nests (peregrine, ferruginous and bald and golden eagles noted above) which have been active within the last 2 years if the activity would result in nest abandonment. • Bighorn Sheep Habitat	• Stark Site ACEC • Weatherman Draw ACEC • Within ½ mile of bald and golden eagle nest sites which have been active within the past 7 years and within bald and golden eagle nesting habitat in riparian areas. • Within ½ mile of ferruginous hawk nest sites which have been active within the past 2 years. • Within 1 mile of peregrine falcon nesting sites (distance may be reduced if natural barriers reduce line of site). • Within ½ mile of raptor nests (peregrine, ferruginous and bald and golden eagles noted above) from March 1 to August 1 which have been active within the last 2 years (distance may be reduced). • Bighorn Sheep Habitat
Energy and Mineral Resources: Locatable Minerals				
The BLM goals and objectives for energy and mineral resources (locatable minerals) is to allow the development of minerals in a manner that prevents degradation of sensitive resources and landscapes. The management actions below identify varying degrees of proposed development by identifying public lands that would be unavailable for locatable mineral development.				
Energy and Mineral Resources: Locatable Minerals – Desired Outcomes (Goals and Objectives)				
• Encourage and facilitate development of locatable minerals in the manner to prevent unnecessary or undue degradation. Provide land use opportunities contributing to economic benefits while protecting or minimizing adverse impacts to other resources. • Identify the public lands open to locatable mineral entry in accordance with existing laws and regulations (43 CFR 3700 and 3800).				
Energy and Mineral Resources: Locatable Minerals – Management Common to All Alternatives				
	Standard management practices in the public land administration of locatable minerals would continue across all alternatives. BLM would coordinate with MDEQ during the review, approval, inspection and reclamation of mining operations. At a minimum, conduct an annual compliance inspection on each active notice. Requirements of all state and federal laws would be met in the management of mining operations. In cases involving valid mining claims, exploration would occur under all alternatives. Administration of locatable minerals on public lands would continue as required by law and regulation (43 CFR 3809) by taking the following steps: • Review and process notices to ensure the proposed action does not create unnecessary or undue degradation of the environment. • Review and process plans of operation to ensure the proposed action does not create unnecessary or undue degradation of the environment.			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	• Conduct at a minimum, annual compliance inspections on each active notice and plan of operation. • Allow casual use where work is done by hand and no explosives are used. Refer inquiries to appropriate agencies for further guidance on other permit requirements.			
	Terms and conditions would be applied to mining activities (within the constraints of the mining law) to meet land health standards for uplands, riparian and wetlands, water quality, air quality, and native plant and animal species (see Appendices H, AA, and AB for sage-grouse specific measures). Note: All withdrawal actions (including mineral withdrawals) are processed in the lands and realty program.			
	Management Actions by Alternative			
	The following areas are currently closed and withdrawn from mineral entry (1,855 acres)(Map 58): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas are closed and recommended for withdrawal from mineral entry (37,845 acres): • Meeteetse Spires ACEC • East Pryor ACEC • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Lands with wilderness characteristics All other federal mineral estate within the planning area would be available for locatable mineral entry and would be managed according to policy, as described in management common.	The following areas are currently closed and would continue to be recommended for withdrawal from mineral entry (1,855 acres) (Map 59): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas would be closed and recommended for withdrawal from mineral entry (269,122 acres) • Bridger Fossil Area ACEC • East Pryor ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Pompeys Pillar ACEC • Pryor Foothills RNA/ACEC • Stark Site ACEC • Weatherman Draw ACEC (4,386 acres) • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Greater Sage-Grouse Habitat ACEC (sage-grouse PPAs) • Lands with wilderness characteristics • Cave and Karst Areas	The following areas are currently closed and would continue to be recommended for withdrawal from mineral entry (1,855 acres) (Map 60): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas would be closed and recommended for withdrawal from mineral entry (35,100 acres): • Bridger Fossil Area ACEC • Meeteetse Spires ACEC • Pompeys Pillar ACEC, • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Lands with wilderness characteristics	The following areas are currently closed and would continue to be recommended for withdrawal from mineral entry (1,855 acres) (Map 61): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas would be closed and recommended for withdrawal from mineral entry (52,906 acres): • Bridger Fossil Area ACEC • East Pryor ACEC • Meeteetse Spires ACEC • Pompeys Pillar ACEC • Pryor Foothills RNA/ACEC • Stark Site ACEC • Weatherman Draw ACEC (4,386 acres) • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Lands with wilderness characteristics

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	No similar action	Make any existing claims within the withdrawal area subject to validity patent exams or buy out. Include claims that have been subsequently determined to be null and void in the proposed withdrawal.	No similar action	No similar action
Energy and Mineral Resources: Mineral Materials				
The BLM goals and objectives for mineral materials would be to allow mineral use while providing protection to sensitive resources and habitat. The BLM would identify areas of BLM-administered public lands open to mineral material disposal in accordance with existing laws and regulations. The management actions by alternative below meet this overall goal by achieving varying degrees of development and protection while still meeting the goals and objectives.				
Energy and Mineral Resources: Mineral Materials – Desired Outcomes (Goals and Objectives)				
• Provide land-use opportunities contributing to economic benefits and meet local infrastructure needs while protecting or minimizing adverse impacts to other resources and resource uses. • Identify the public lands open to minerals materials disposal in accordance with existing laws and regulations (43 CFR 3600).				
Energy and Mineral Resources: Mineral Materials – Management Common to All Alternatives				
	BLM would dispose of saleable minerals on unpatented mining claims only for a public purpose when no reasonable alternative exists. Saleable mineral sites would have an approved mining and reclamation plan and an environmental analysis prior to being opened. Mineral material would be sold at a fair market value to the public, but would be free to state, county, or other local governments when used for public projects. Mineral material sales would be processed on a case-by-case basis.			
	Valid, existing mineral rights, within the planning area would not be changed by any decision in this document. None of the alternatives give BLM the discretion to prohibit mineral exploration or development on valid leases or mining claims.			
	The BLM would continue to provide for the exploration and development of mineral materials unless withdrawn.			
	New mineral material sites would be evaluated on a case-by-case basis. With the exception of lands withdrawn from all mineral entry, the planning area would be available for establishment of future sites, pending site-specific analysis. Terms and conditions to protect public land and resource values would be applied on a case-by-case basis.			
Energy and Mineral Resources: Mineral Materials – Management Actions by Alternative				
	The following areas are closed to mineral material disposals (44,583 acres) (Map 62): • Bridger Fossil Area ACEC • East Pryor ACEC • Four Dances ACEC • Meeteetse Spires ACEC • Pompeys Pillar NM • Stark Site ACEC • Weatherman Draw ACEC • Lands with wilderness	The following areas are closed to mineral material disposals 343,745 acres) (Map 63): • Bridger Fossil Area ACEC • East Pryor ACEC • Four Dances ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM and ACEC • Pryor Foothills RNA/ACEC • Stark Site ACEC	The following areas are closed to mineral material disposals (251,927 acres) (Map 64): • Four Dances ACEC • Pompeys Pillar NM and ACEC • Weatherman Draw ACEC • Lands with wilderness characteristics • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA	The following areas are closed to mineral material disposals (272,122 acres) (Map 65): • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM and ACEC • Pryor Foothills RNA/ACEC • Stark Site ACEC • Weatherman Draw ACEC • Lands with wilderness characteristics • Big Horn Tack-On WSA

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	characteristics • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA	• Weatherman Draw ACEC • Lands with wilderness characteristics • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Greater Sage-Grouse Habitat ACEC (sage-grouse PPAs) • Greater Sage-Grouse RAs • Shepherd Ah-Nei Recreation Area • Acton Recreation Area	• Twin Coulee WSA. (If Twin Coulee WSA is released from further consideration, the area may be open to mineral material disposals.) • Greater Sage-Grouse PPAs – closed to new salable minerals; existing permits would be renewed with no increase in the permitted boundary.	• Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA. (If Twin Coulee WSA is released from further consideration, the area may be open to mineral material disposals.) • Greater Sage-Grouse PPAs - same as C • Shepherd Ah-Nei Recreation Area • Acton Recreation Area • Asparagus Point
Forestry and Woodland Products				
The BLM would manage the public forests and woodlands to maintain and enhance the health, productivity, and biological diversity of these ecosystems. A balance of natural resource benefits would be provided to present and future generations. The management of forest and woodland resources would be consistent with the principles of multiple use and sustained yield. The Federal Land Policy and Management Act of 1976 (FLPMA) directs the BLM to prepare interdisciplinary land use plans based on the principles of multiple-use and sustained yield. The ecosystem management concept is at the core of FLPMA and the basis for all forestry activities in the BLM. All forest management actions would meet or exceed the Montana Streamside Management Zone (SMZ) law and Water Quality Best Management Practices for Montana Forests (BMPs) to ensure the protection of soil, water, riparian, and fisheries resources. The BLM's forestry program promotes forest and woodland communities that are healthy, resilient, and vigorous. Forestland mosaics are managed for a diversity of stand structures and species components that complement other resource values, including but not limited to recreation, wildlife, rangelands, fisheries, and wood fiber production.				
Forestry and Woodland Products – Desired Outcomes (Goals and Objectives)				
• Manage forest resources to provide a sustained flow of local economic benefits and protect non-market economic values, consistent with other resource objectives. • Provide forest products while maintaining a balance between public demand and the health and productivity of native and desired vegetative communities. Forest product sales include over the-counter sales of firewood, Christmas trees or other products, and small amounts of materials removed as a result of other authorizations such as rights-of-way, road use agreements, grazing leases, or other land uses. • Provide forest and woodland products including, but not limited to; sawlogs, pulp, post/poles, fuel wood, and biomass on a sustainable basis. • Manage forests and woodlands to meet or exceed the standards identified in BLM's Standards for Rangeland Health (Standards 1 and 5)				
Forestry and Woodland Products – Management Common to All Alternatives				
	Commercial harvest of forest products would normally be associated with vegetative restoration (including forest health and fuels treatments) and would be designed to meet objectives for forest management, wildlife habitat management, fire hazard reduction, hazard tree removal, special status species management, visuals, recreation, travel management, and any other relevant resource concerns.			
	Provide forest products as practical where forests have been damaged by wildfire and/or insects/disease.			
	Biomass and small diameter materials associated with forest/fuels treatments would be made available for use.			
	Forest products would be managed according to sustainability limits and where consistent with other resource management objectives.			
	Removal of dead or down trees would be allowed for firewood cutting, unless otherwise restricted (e.g., WSAs, ACECs, riparian areas, etc.). Cutting of live trees for firewood for			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	personal use or commercial purposes would be authorized on a case by case basis after review and compliance with NEPA. Forest products use would be allowed except where prohibited.			
	Forestry and Woodland Products – Management Actions by Alternative			
	Accommodate demand for the sale of commercial forest products (PSQ appx. 84 MBF/year).	Meet public demand for commercial forest products (PSQ appx. 134 MBF/year). PSQ values may be adjusted based on monitoring evaluations, due to unforeseen events such as wildfires, current inventories, insect/disease, or climate conditions.	Accommodate the demand for commercial forest products (PSQ appx. 223 MBF/year). PSQ values may be adjusted based on monitoring evaluations, due to unforeseen events such as wildfires, current inventories, and insect/disease, or climate conditions.	Accommodate the demand for commercial forest products (PSQ appx. 178 MBF/year). PSQ values may be adjusted based on monitoring evaluations, due to unforeseen events such as wildfires, current inventories, and insect/disease, or climate conditions.
	No current management decision provided	Restrict permits for other forest products (e.g., Christmas trees, fuel wood, juniper, wildlings, mushrooms, etc.), when harvest would conflict with other resource values.	Allow unlimited permits/year, unless otherwise restricted, for other forest products (e.g., Christmas trees, fuel wood, juniper, wildings, mushrooms, etc.).	Restrict permits for other forest products (e.g., Christmas trees, fuel wood, juniper, wildlings, mushrooms, etc.), when harvest would conflict with other resource values.
	No current management decision provided	Forest treatments would occur in areas already accessible by the current road system. Temporary road construction would follow Montana's Water Quality BMPs for Montana Forests and would be decommissioned and reclaimed as soon as the project is completed.	New roads would be built where multiple entries would be necessary to meet objectives. New road construction would follow Montana's Water Quality BMPs for Montana Forests and would be added to the existing travel management plan for the given area if travel plan objectives for the area are met. Temporary road construction would follow Montana's Water Quality BMPs for Montana forests and be decommissioned, with reclamation initiated within 1 year of project completion.	New roads would be built where multiple entries would be necessary to meet objectives. New road construction would follow Montana's Water Quality BMPs for Montana forests. New roads may be left open to the public if travel plan objectives for the area are met. Temporary road construction would follow Montana's Water Quality BMPs for Montana forests and be decommissioned, with reclamation initiated within 1 year of project completion.

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	No current management decision provided	Where contiguous acres of dead and dying forest exceed 1,000 acres, up to 50% of the forested area may be treated. Harvest treatments within the remaining project area may include creation of forest openings and/or selective thinning between openings.	Salvage may proceed with appropriate mitigation measures applied	When salvage is proposed in dead and dying forests, contiguous acres of undisturbed standing and down woody material would be retained on a site specific basis, consistent with wildlife species, forest health restoration, and other resource requirements (e.g., soils, riparian, visual resources, etc.).
Lands and Realty: Land Tenure Adjustment and Access				
The goals and objectives of land tenure adjustment and access would be to retain public lands with high resource values in public ownership, as well as provide for adjustments in land ownership to consolidate public land holdings, acquire lands with high public resource values, and meet public and community needs. All proposed land ownership adjustment actions would be considered at project specific environmental reviews. Public access would be maintained or improved through all land ownership adjustments transactions. Section 102(a)(1) of FLPMA provides that ". . . the public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular tract would serve the national interest." Lands generally identified for disposal have low or unknown resource values or are isolated or fragmented from other public lands.			
Lands and Realty: Land Tenure Adjustment and Access – Desired Outcomes (Goals and Objectives)				
• Manage the acquisition, disposal, withdrawal, and use of public lands to meet the access needs of internal and external customers and to preserve important resource values. • Acquire or retain access to public lands to improve management efficiency, to facilitate multiple uses and public enjoyment of BLM public lands in coordination with private landownership, local, state or federal entities. • Maintain and/or acquire access across state/private lands to public lands for recreational opportunities and management of public land resources. • Public access would be maintained or improved through all land ownership adjustment transactions.				
Lands and Realty: Land Tenure Adjustment and Access – Management Common to All Alternatives				
	Newly acquired lands would be managed for the highest potential purpose and greatest public benefit for which they are acquired and would be managed similar to adjacent and/or surrounding lands.			
	Lands or interest in lands would be acquired by purchase, exchange, revocation of another agency's withdrawals, administrative transfer from another agency, cooperative agreement, donation, or other authority, and evaluated against the criteria in Appendix J. All land or mineral ownership adjustments would be based on a willing buyer, willing seller basis and would be managed as similar lands are under the approved RMP. Administration of other federal lands could occur through revocation of withdrawals, jurisdictional or administrative transfer, or agreement.			
	Evaluate the proposed disposal tracts (Category III) using the land tenure criteria identified in Appendix J.			
	Parcels of land administered by BLM and discovered through land status updates and corrections would be managed as similar lands are under the approved RMP.			
	Lands acquired within or adjoining Congressionally designated areas (NM, NHT, etc.) or within administratively designated special management areas, such as ACECs and SRMAs, which have unique or fragile resources, would be managed the same as the special management area.			
	Acquisition of patented mining claims would be addressed on a case-by-case basis. Patented claims so acquired would be withdrawn from mineral entry.			
	Use all methods available to acquire access: easements from land or land exchange with willing parties would be the preferred methods of access acquisition.			
	Retain existing access to BLM-administered lands, or other public lands, in conveyance documents.			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Lands and Realty: Land Tenure Adjustment and Access – Management Common to Action Alternatives				
	No current management decision provided	Oil and gas exploration, leasing and development would be allowed with a No Surface occupancy stipulation on lands acquired with Land and Water Conservation Funds (NSO)		
	Retention zones as identified in the current plan.	Special Designations (including ACECs and WSAs), archeological sites/historic districts, and lands acquired through Land Water Conservation Funds would be managed as Category I – Retention.		
	Consider land ownership adjustments according to the established criteria and zones.	Land ownership adjustments would be considered through site-specific analysis, based on retention, acquisition and disposal criteria (Appendix J). Establish three (3) adjustment categories based on BLM land tenure adjustment classes: • Category I – Retention: Lands managed in Category I – Retention would include all lands with Special Designations (including ACECs, WSAs, National Historic Trails, National Monuments, etc.), Lands with Wilderness Characteristics, National Register-eligible archeological sites/historic districts, and lands acquired through LWCF and FLTFA. Category I lands would not be transferred from BLM management by any method for the life of the plan. • Category II- Retention/Limited Land Ownership Adjustment: Public lands within Category II would be considered for limited land ownership adjustments; however lands in Category II would not be available for sale under section 203 of FLPMA. Some public lands in Category II may contain resource values protected by law or policy. If actions cannot be taken to adequately mitigate impacts from disposal of those lands, those parcels would be retained. • Category III – Disposal (land ownership adjustments, including sales): These lands generally have low or unknown resource values or are isolated or fragmented from other public land ownerships making them difficult to manage. Public land parcels in this category are relatively smaller in size (typically 160 acres or less). A listing of the legal descriptions of these disposal parcels can be found by alternative in Appendix J. These parcels have been found to potentially meet the sale criteria of section 203(a)(1) of FLPMA and could be made available for sale, however, exchange could have priority over disposal by FLPMA sale.		
Lands and Realty: Land Tenure Adjustment and Access – Management Actions by Alternative				
	Manage 26,616 acres for Retention	Manage 68,300 acres in Category I – Retention	Manage 108,184 acres in Category I – Retention	Manage 80,060 acres in Category I – Retention
	No current management decision provided	Manage 365,804 acres in Category II - Retention/Limited Land Ownership Adjustment (no land disposals through direct sale). Land exchanges would be considered.	Manage 321,747 acres in Category II - Retention/Limited Land Ownership Adjustment (no land disposals through direct sale). FLTFA sales and land exchanges would be considered.	Manage 353,924 acres in Category II - Retention/Limited Land Ownership Adjustment (no land disposals through direct sale). FLTFA sales and land exchanges would be considered.
	Manage 7,529 acres for Disposal, and 2,088 acres were identified for further study.	Manage 50 acres in Category III – Disposal (land ownership adjustments, including direct sale).	Manage 4,223 acres in Category III – Disposal (land ownership adjustments, including direct sale, FLTFA sale, or land exchanges).	Manage 170 acres in Category III – Disposal (land ownership adjustments, including direct sale, FLTFA sale or land exchanges).

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Consider applications for Recreation and Public Purposes (R&PP) Act transfers and airport grants on a case-by-case basis.	Consider applications for R&PP leases/patents and airport grants only in Category III.	Consider applications for R&PP leases/patent and airport grants in all Categories II and III.	Consider applications for R&PP leases/patents and airport grants only in Category II and Category III.
	Make lands available for state grants, agricultural entries, and Indian allotments on a case-by-case basis.	BLM public lands would be available for state indemnity grants, as legally required in Categories II and III lands. There are no lands in the Billings Field Office that are suitable for agricultural entry or Indian allotments. This is based on a combination of poor soil types, a lack of water, available water rights, and rugged topography.		
Lands and Realty: Rights-of-Way, Leases, and Permits				
The BLM goals for the management of Rights-of-Way (ROW), leases, and permits within the Billings Field Office are to protect resources while meeting transportation and ROW needs in the planning area. To accomplish this, the Billings Field Office proposes to implement a variety of management activities that allow to various land actions or authorizations, with a range of restrictions based on resource concerns to help meet the goals and objectives of other resources. Actions specific to lands ROWs, leases and permits are listed below, by alternative and are primarily focused categorizing ROWs in areas as exclusion areas and avoidance areas, as well as how and under what conditions land use authorizations may occur within the decision area.				
Lands and Realty: Rights-of-Way, Leases, and Permits – Desired Outcomes (Goals and Objectives)				
• Manage public lands to meet transportation and rights-of-way (ROW) needs while protecting resources. • Address the needs of industry, utilities, the public, or government entities for land use authorizations while minimizing impacts to other resource values. • Maintain availability of public lands to meet the habitation, cultivation, trade, mineral development, recreation, and manufacturing needs of external customers and the general public.				
Lands and Realty: Rights-of-Way, Leases, and Permits – Management Common to All Alternatives				
	Analyze requests for land use authorizations and apply mitigation measures as appropriate (Appendix B).			
	Land use authorizations would not be issued for uses that involve the disposal or storage of materials which would contaminate the land (hazardous waste disposal sites, landfills, rifle ranges, etc.).			
	New ROW facilities would be located within or adjacent to existing rights-of-way to the extent possible.			
	New communication site users would be encouraged to locate within existing communication site buildings or within boundaries defined by communication site plans.			
	Reclamation of sites would be required where documented resource damage has occurred from unauthorized use.			
	ROW exclusion or avoidance areas would be subject to valid existing rights.			
	Terms and conditions for ROWs, corridors and development areas would incorporate best management practices.			
	Issues in connection with RS2477 roads would be subject to the current guidance			
	If a BLM ROW, lease, permit, conservation easement, or R&PP lease or patent occurs on an oil and gas lease, the lessee would be notified			
	The following five ROW areas are designated for communication sites: Wall Creek, north of Pompeys Pillar, Bridger, Tin Can Hill, and Four Dances Natural Area ACEC. Applicants are encouraged to utilize existing communication site facilities to minimize disturbance.			
	Upon project completion, roads used for commercial access on public lands would be reclaimed, unless, based on site-specific analysis, the route provides specific benefits for public access and does not contribute to resource conflicts.			
	Pursue reciprocal rights for public access when granting a BLM right-of-way, as appropriate.			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Overhead powerlines, where authorized, would follow the recommendations in *Avian Protection on Powerlines, State of the Art in 2006* (APLIC). Power poles and other tall structures would be designed to prevent raptors from perching on the poles and reflectors attached.			
	No current management decision provided	Geophysical carbon sequestration would be allowed in the planning area in accordance with the goals and objectives for resources in the RMP. The BLM would comply with policy for issuing ROWs or leases for the purpose of geophysical carbon sequestration.		
	Low voltage powerlines would be buried if feasible.	BLM would require powerlines 69kV and less in size to be buried if feasible.	BLM would require powerlines 69kV and less in size to be authorized in a manner that ensures habitat is maintained (e.g. burying, anti-perching devices or line location).	BLM would require powerlines 69kV and less in size to be buried if feasible. BLM would require powerlines 69kV and less in size to be authorized in a manner that ensures habitat is maintained (e.g. burying, anti-perching devices or line location).
	Corridors			
	A multi-modal (pipeline and electrical transmission) Section 368 corridor (identified as Segment 79-216) would continue to be a designated corridor and is 5.2 miles in length, 3,500 feet in total width, located east of Highway 310 in Carbon County (Map 76).			
	No current management decision provided	Silver Tip Road would not be designated a ROW corridor (Map 76).	Silver Tip Road in Carbon County would be designated as a ROW corridor (1 mile on either side of the center line of Silver Tip Road) (Map 77).	Silver Tip Road in Carbon County would be designated as a ROW corridor (1,750 feet on either side of the center line of Silver Tip Road). This corridor would have a total width of 3,500 feet and 6 miles in length on public land (Map 78).
	No current management decision provided.	Applicants would be encouraged, but not required, to use designated corridors; ROW requests would be considered on a case by case basis.	Applicants would be encouraged, but not required, to use designated corridors; ROW requests would be considered on a case by case basis. ROW application processing time would be expedited by the use of a designated corridor.	Same as C.
	ROW Exclusion Areas			
	ROW exclusion areas include (44,014 acres) (Map 72): The following are ROW exclusion areas: • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Bridger Fossil Area ACEC • East Pryor ACEC	ROW Exclusion Areas: (211,384 acres) and include the following areas (Map 73): • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • In addition, if not designated by Congress as Wilderness, the WSAs would continue to be managed as ROW	ROW Exclusion Areas: (39,491 acres) and include the following areas (Map 74): • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Meeteetse Spires ACEC • Petroglyph Canyon • Pompeys Pillar ACEC – Zone A and	ROW Exclusion Areas: (48,258 acres) and include the following areas (Map 75): • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA. • In addition, if not designated by Congress as Wilderness, the WSAs would continue to be managed as

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	• Meeteetse Spires ACEC • Petroglyph Canyon • Pompeys Pillar ACEC – Historic Zone except those necessary to service the site facilities. • Stark Site ACEC • Weatherman Draw ACEC	exclusion areas. • Bridger Fossil Area ACEC • Castle Butte ACEC • East Pryor ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Petroglyph Canyon • Pompeys Pillar ACEC – Zone A and B, except those necessary to service the site facilities. • Pryor Foothills RNA ACEC • Stark Site ACEC • Portion of Weatherman Draw ACEC (original ACEC and acquisition). • Lands with wilderness characteristics • Cave and karst areas would be managed as a ROW exclusion area. • Greater Sage-Grouse Habitat ACEC (sage-grouse PPAs) would be ROW exclusion areas	B except those necessary to service the site facilities • Portion of Weatherman Draw ACEC (original ACEC and acquisition). • Lands with wilderness characteristics	ROW exclusion areas. • Bridger Fossil Area ACEC • Meeteetse Spires ACEC • Petroglyph Canyon • Pompeys Pillar ACEC – Zone A and B, except those necessary to service the site facilities • Portion of Weatherman Draw ACEC (original ACEC and acquisition). • Lands with wilderness characteristics
	ROW Avoidance Areas			
	ROW avoidance areas include 24,203 acres (Map 68): • Castle Butte ACEC • Four Dances ACEC • Pompeys Pillar ACEC (Historic-developed and General Management Zones (avoidance area and restricts ROW to a 500' wide path paralleling the southern boundary of the public lands along Highway 312) • Asparagus Point, Steamboat Butte • Red Dome, Red Valley, Portion of Acton, Portion of Shepherd Ah-Nei, • Bad Canyon, East and Red Pryor	ROW avoidance areas would include 185,607 acres (Map 69): • Four Dances ACEC, • Pompeys Pillar ACEC (Zone C-restricts ROW to a 500' wide path paralleling the southern boundary of the public lands along Highway 312) • L&C NHT and NP NHT • Asparagus Point, Steamboat Butte, Portion of Acton, Portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains • Hoskins Basin Archeological District, Demi-John Flat Archeological District, Beartooth Mountain Front (2 mile strip	ROW avoidance areas would include 355,601 acres (Map 70): • Bridger Fossil Area ACEC • Castle Butte ACEC • East Pryor ACEC • Four Dances ACEC • Grove Creek ACEC • Pompeys Pillar ACEC (Zone C - restricts ROW to a 500' wide path paralleling the southern boundary of the public lands along Highway 312) • Pryor Foothills RNA/ACEC • Stark Site ACEC • Weatherman Draw (expansion area)	ROW avoidance areas would include 349,358 acres (Map 71): • Castle Butte ACEC • East Pryor ACEC • Four Dances ACEC • Grove Creek ACEC Pompeys Pillar ACEC (Zone C - restricts ROW to a 500' wide path paralleling the southern boundary of the public lands along Highway 312) • Pryor Foothills RNA/ACEC • Stark Site ACEC Weatherman Draw (expansion area) • Cave and karst areas would be managed as ROW avoidance areas.

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Mountains • Hoskins Basin Archeological District, Demi-John Flat Archeological District, Beartooth Mountain Front (2 mile strip bordering the eastern boundary of the Custer National Forest)	bordering the eastern boundary of the Custer National Forest) • WSR eligible segments • Big Horn Sheep Winter Range • Big Game Winter Range • Greater Sage-Grouse RAs • Greater Sage-Grouse General Habitat Area	• Cave and karst areas • L&C NHT and NP NHT • Asparagus Point, Steamboat Butte, Portion of Acton, Portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains, • Hoskins Basin Archeological District, Demi-John Flat Archeological District, Beartooth Mountain Front (2 mile strip bordering the eastern boundary of the Custer National Forest) • WSR eligible segments • Big Horn Sheep Winter Range • Big Game Winter Range • Sage-grouse PPAs and RAs would remain avoidance areas. However ROWs would only be allowed in Greater Sage-Grouse PPAs and RAs where habitat functionality would be maintained.	• L&CNHT and NPNHT would be avoidance areas • Asparagus Point, Steamboat Butte, portion of Acton, portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains • Hoskins Basin Archeological District, Demi-John Flat Archeological District, Beartooth Mountain Front (2 mile strip bordering the eastern boundary of the Custer National Forest) • WSR eligible segments • Big Horn Sheep Winter Range • Big Game Winter Range • Greater Sage-Grouse General Habitat • Sage-Grouse PPAs and RAs would remain avoidance areas. However ROWs would only be allowed in Greater Sage-Grouse PPAs and RAs where habitat functionality would be maintained.
Lands and Realty: Withdrawals				
The BLM goals for the management of Withdrawals within the Billings Field Office are to protect significant resources through mineral withdrawal actions that accomplish the required purposes of the withdrawal. To accomplish this, the Billings Field Office has proposed, by alternative, withdrawal actions to protect the identified resource values. The BLM would follow departmental and bureau policies in consideration of any new proposed withdrawals. Lands proposed for withdrawal would be the minimum area required for the intended use.				
Lands and Realty: Withdrawals – Desired Outcomes (Goals and Objectives)				
• Protect significant resources or significant government investments. • Use withdrawal actions with the least restrictive measures and minimum size necessary to accomplish the required purposes of the withdrawal.				
Lands and Realty: Withdrawals – Management Common to All Alternatives				
	Review withdrawals two (2) years prior to termination either to extend, modify, or revoke. If withdrawals are no longer needed, in whole or in part, for the intended purpose for which they were created, the withdrawal would be revoked or modified.			
	Consider other agency requests for new withdrawals, relinquishments, extensions or modifications on a case-by-case basis with consideration given to determining if the lands would be suitable for return to BLM public domain.			
	All Classification and Multiple Use classifications in the planning area have been terminated.			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Withdrawal proposals would be evaluated at the project level and would not be approved unless the land management is consistent with maintaining and protecting BLM resource values (see BMP and SG Appendices as appropriate).			
	The following areas are currently closed and withdrawn from mineral entry (1,855 acres): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas are closed and recommended for withdrawal from mineral entry (37,845 acres): • Meeteetse Spires ACEC • East Pryor ACEC • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Lands with wilderness characteristics All other federal mineral estate within the planning area would be available for locatable mineral entry and would be managed according to policy, as described in management common.	The following areas are currently closed and would continue to be recommended for withdrawal from mineral entry (1,855 acres): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas would be closed and recommended for withdrawal from mineral entry (269,122 acres) • Bridger Fossil Area ACEC • East Pryor ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Pompeys Pillar ACEC • Pryor Foothills RNA/ACEC • Stark Site ACEC • Weatherman Draw ACEC (4,386 acres) • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Greater Sage-Grouse PPAs • Lands with wilderness characteristics • Cave and Karst Areas	The following areas are currently closed and would continue to be recommended for withdrawal from mineral entry (1,855 acres): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas would be closed and recommended for withdrawal from mineral entry (35,100 acres): • Bridger Fossil Area ACEC • Meeteetse Spires ACEC • Pompeys Pillar ACEC, • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Lands with wilderness characteristics	The following areas are currently closed and would continue to be recommended for withdrawal from mineral entry (1,855 acres): • Britton Springs Administrative Site Crooked Creek Natural Area (WY) • Four Dances ACEC • Petroglyph Canyon ACEC • Pompeys Pillar NM • Weatherman Draw ACEC (600 acres) The following areas would be closed and recommended for withdrawal from mineral entry (52,906 acres): • Bridger Fossil Area ACEC • East Pryor ACEC • Meeteetse Spires ACEC • Pompeys Pillar ACEC • Pryor Foothills RNA/ACEC • Stark Site ACEC • Weatherman Draw ACEC (4,386 acres) • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA • Lands with wilderness characteristics

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Livestock Grazing				
The Bureau of Land Management livestock grazing program is mandated by law to provide opportunities for grazing in a manner that maintains and/or improves rangeland health. Management actions that preclude grazing in certain areas of the planning area are in place because livestock grazing has been deemed inconsistent with other activities, uses, or needs (i.e. wild sheep range, concentrated recreation areas, etc.). Livestock grazing management actions that are common to all alternatives focus primarily on meeting the *Standards for Rangeland Heath*, as outlined in Appendix I. In order to reach the goal of healthy rangelands, the bureau must maintain existing desirable rangeland conditions or improve rangeland health utilizing the *Guidelines for Grazing Management*, also outlined in Appendix I. It is critical that grazing management actions are monitored and evaluated to determine if rangeland and riparian conditions are improving, or at minimum, being maintained. Prescribed grazing strategies and systems as well as natural and mechanical vegetation improvements also maintain the number of Animal Unit Months (AUMs) available for livestock grazing that support and sustain local ranching communities. The integration of livestock grazing with other multiple-use needs and objectives is also essential. When issuing or transferring grazing authorizations a thorough review of these actions is conducted.				
Livestock Grazing – Desired Outcomes (Goals and Objectives)				
• Provide opportunities for livestock grazing as a part of multiple-use in a manner that improves and/or maintains rangeland health standards. • Maintain existing desirable (allotment categorization) rangeland conditions or improve rangeland health utilizing best grazing management practices. • Monitor and evaluate rangeland health to determine appropriate management actions. • Integrate livestock use and associated management practices with other multiple-use needs and objectives to maintain, protect, and improve rangeland health.				
Livestock Grazing – Management Common to All Alternatives				
	Monitor and evaluate grazing allotments to maintain or improve rangeland productivity.			
	AUM levels would be sustained on an allotment-by-allotment basis for livestock grazing, providing Montana Standards for Healthy Rangelands are being met.			
	Adjust permit terms and conditions (e.g. increased/decreased permitted use, season of use, and kind and class of livestock) when grazing permits are issued or as otherwise deemed necessary by site specific evaluation of monitoring data and environmental analysis.			
	Use livestock grazing to enhance ecosystem health, wildlife habitat, or mitigate resource issues (e.g., noxious/invasive weed control and hazardous fuel reduction) where supported by site-specific environmental analysis.			
	During periods of drought, adjust livestock numbers commensurate with the needs of other resources in the area (riparian, wildlife, etc.)			
	Exclude livestock grazing from small areas (such as springs) within allotments that cannot meet Rangeland Health Standards with livestock grazing.			
	Site-specific management actions that protect riparian areas would be addressed at the project level.			
	Grazing treatments and systems would be adaptive to new research, science and methodologies.			
	In areas of resource conflicts, installation of structural range improvements would only be considered where grazing practices (change in season of use, reduction of AUMs, increased rest, etc.) are unable to resolve the resource concern. Structural range improvements could be considered where necessary to facilitate the change in grazing management practices. Existing range improvements would be evaluated and modified to address impacts on wildlife populations (e.g. sage-grouse/fence conflicts).			
	Newly acquired lands would be evaluated for livestock grazing during the acquisition process, and subject to 43CFR 4110.1-1.			
	Site specific greater sage-grouse habitat and management objectives would be developed for BLM land within greater sage-grouse priority areas. These objectives would be incorporated into the respective allotment management plans or livestock grazing permits as appropriate.			
	Livestock Grazing – Management Common to Action Alternatives			
	No similar action	All allotments wholly located in sage-grouse PPA habitat would be considered for retirement, where the base property owner relinquishes		

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		their preference.		
	Livestock Grazing – Management Actions by Alternative			
	Areas open to Grazing, AUM Allocation, and Monitoring			
	Total Acres Available to livestock grazing: 434,154			
	Isolated parcels not included within grazing allotments: 9,522 acres			
	Total acres permitted for livestock grazing: 387,057	Total acres permitted for livestock grazing: 386,092	Total acres permitted for livestock grazing: 386,822	Total acres permitted for livestock grazing: 387,057
	Total acres closed to permitted livestock use for the life of the plan: 37,408 acres Areas specifically closed to livestock grazing include: • Pryor Mountain Herd Area: 28,387 acres • Pompeys Pillar ACEC: 432 acres • Bundy Island: 78 acres • Sundance Lodge Recreation Area: 387 acres • Four Dances Natural Area ACEC: 784 acres • Asparagus Point: +/- 26 acres (that portion north of the Musselshell River and accessible from State Hwy 12) • Meeteetse Spires ACEC: 558 acre acquisition area • Twin Coulee WSA: 6,756 acres	Total acres closed to permitted livestock use for the life of the plan: 38,373 acres Areas specifically closed to livestock grazing include: • Pryor Mountain Herd Area: 28,387 acres • Pompeys Pillar ACEC: 432 acres • Bundy Island: 78 acres • Sundance Lodge Recreation Area: 387 acres • Four Dances Natural Area ACEC: 784 acres • Asparagus Point: +/- 26 acres (that portion north of the Musselshell River and accessible from State Hwy 12) • Meeteetse Spires ACEC: 1,523 acres • Twin Coulee WSA: 6,756 acres	Total acres closed to permitted livestock use for the life of the plan: 28,622 acres Areas specifically closed to livestock grazing include: • Pryor Mountain Herd Area: 28,622 acres (Bad Pass Allotment (149 acres) is within the formal boundary of the Pryor Mountain Herd Area boundary and would be open to trailing and therefore open to grazing.)	Total acres closed to permitted livestock use for the life of the plan: 28,387 acres Areas specifically closed to livestock grazing include: • Pryor Mountain Herd Area: 28,387 acres
			Total acres available for prescriptive use of livestock grazing: 9,021 acres The following areas could be open to livestock grazing on a temporary basis for the treatment of noxious weeds or as a prescriptive treatment (targeted grazing) to meet site specific vegetation or other resource management goals: • Pompeys Pillar ACEC: 432 acres	Same as C

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
			• Bundy Island: 78 acres • Sundance Lodge Recreation Area: 387 acres • Four Dances Natural Area ACEC: 784 acres • Asparagus Point: +/- 26 acres (that portion north of the Musselshell River and accessible from State Hwy 12) • Meeteetse Spires ACEC: 558 acres • Twin Coulee WSA: 6,756 acres	
	Current available AUMs are 54,873.	Maintain current available AUMs (up to 54,873). Adjustments to permitted use would be authorized, based on allotment specific standards and conformance reviews.	Maintain current available AUMs (up to 54,873). Implement range improvements that meet forage demand.	Same as B
	Current suspended non-use allocation - 7,746 AUMs.	Maintain current AUMs in suspense (7,746) for watershed health or wildlife habitat.	Make current AUMs suspended non-use (7,746) available for livestock grazing use.	Consider adjusting (increase or decrease) suspended AUMs, based on monitoring data and range conditions.
	Maintain existing allotment management categories (see Appendix S)	Designate those allotments within or containing Sage-Grouse PPAs as management category I. All other allotments would maintain their existing designation and would be updated as resource conditions change	Same as A	Same as B
	Monitor and evaluate the appropriate management actions (grazing systems and range improvements) to ensure range condition and objectives are met on I allotments and maintained on M and C allotment.	Priority Allotments for monitoring and evaluation would be allotments which: • Are not meeting standards for rangeland health • Contain special status species habitat (including sage-grouse PPAs / RAs) • Contain impaired streams • Contain non-functional or functioning at risk downward trend riparian areas. • Contain invasive plant species.	Same as A	Priority Allotments for monitoring and evaluation would be allotments which: • Are not meeting standards for rangeland health • Contain special status species habitat (including sage-grouse PPAs / RAs) • Contain impaired streams • Contain non-functional or functioning at risk downward trend riparian areas. • Contain invasive plant species. • Allotments that have established and

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
				implemented management plans during the life of the plan.
	Riparian areas are assessed every 10 years (permit renewal). If standards are not being met, and grazing is a causal factor, management actions would be taken to make progress toward meeting the standard before the next grazing season.	Assess PFC on all fish bearing streams on a 3 year rotation (approx. 46 miles). If standards are not being met, and grazing is a causal factor, management actions would be taken to make progress toward meeting the standard before the next grazing season.	Same as A	Assess PFC on all fish bearing streams on a 3 year rotation, with the exception of areas that are free of existing or potential threats (approx. 30 miles). (ex: Piney and Crooked Creek are the current exceptions). If standards are not being met, and grazing is a causal factor, management actions would be taken to make progress toward meeting the standard before the next grazing season.
	No current management decision provided.	No supplement or salt placement within ½ mile of known special status plant sites.	No supplement or salt placement within ¼ mile of known special status plant sites.	No supplement or salt placement within ¼ mile of known special status plant sites, unless livestock is otherwise excluded (fence or barrier).
	Permit and Lease Renewal and Relinquishments			
	No current management decision provided	Grazing permits/leases would be transferred or renewed for C category grazing allotments where the new grazing authorization: (1) Contains the same mandatory terms and conditions (kind of livestock, the active use previously authorized is not exceeded, and grazing does not occur more than 14 days earlier or later than as specified on the previous permit/lease). (2) Have evaluation reports documenting that they are meeting land health standards. A screening criteria checklist (Appendix L) would be reviewed prior to renewal. If the answer to each of the questions is "NO", the renewal is within scope and NEPA compliance can be achieved by preparing a Documentation of NEPA Adequacy (DNA) form which references this RMP/EIS. If the answer to any question is "YES", the proposed action represents an exception,	Grazing permits/leases would be transferred or renewed for C and M category grazing allotments where the new grazing authorization (Same as B). Category I allotments would not meet the criteria for this type of action.	Same as C

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		and site-specific analysis would be prepared. Category I and M allotments would not meet the criteria for this type of action.		
	No current management decision provided	Relinquished AUMs would be retired.	Relinquished AUMs would remain available for transfer.	Relinquished AUMs would be transferred or managed as reserve common allotments for neighboring allotments with conflict or resource condition issues.
	No current management decision provided	Areas with active surface disturbance would be unavailable to livestock grazing. The AUMs for these areas would be suspended during surface disturbance activities until at such time grazing would continue in a manner which supports the standards for rangeland health.	Areas with active surface disturbance would be available to livestock grazing. The AUMs for these areas would be suspended during surface disturbance activities until at such time grazing would continue in a manner which supports the standards for rangeland health.	Same as C
	Sheep or goats would not be permitted within 9 miles from known bighorn sheep habitat. This distance would be greater if deemed necessary through site specific analysis.	Conversions from cattle to domestic sheep or goats would be prohibited in allotments within occupied wild sheep habitat (Map 17). New sheep and goat allotments or conversions from cattle to sheep or goats would not be permitted within 14.3 miles from known bighorn sheep habitat. This distance would be greater if deemed necessary through site specific analysis.	Conversions from cattle to domestic sheep or goats would be prohibited in allotments within occupied wild sheep habitat (Map 17). New sheep and goat allotments or conversions from cattle to sheep or goats would not be permitted within 12.4 miles from known bighorn sheep habitat. This distance would be greater if deemed necessary through site specific analysis.	Domestic sheep/goat permits – No new grazing permits authorizing sheep or goat allotments would be allowed in bighorn sheep range (Map 17). Sheep and goat allotments in areas with risk of contact with bighorn sheep and domestic sheep and/or goats in the planning area would be reviewed and managed, or reclassified if necessary, to achieve effective separation (both temporal and/or spatial) between domestic sheep and/or goats and bighorn sheep. Contact risk would be based on habitat, distance between bighorn sheep range (current and anticipated), sheep and goat allotments, movement potential, and current science and guidelines. Domestic sheep/goats would not be allowed within bighorn sheep range unless mechanisms are in place to achieve effective separation from wild sheep.

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Recreation and Visitor Services				
The Federal Land Policy and Management Act provides for recreation use of public land as an integral part of multiple use management. Dispersed, unstructured activities typify the recreational uses occurring throughout the majority of the planning area. BLM Manual 8320 directs the BLM to designate special units known as special recreation management areas (SRMAs), extensive recreation management areas (ERMAs), and Public Lands Not Designated (PLND). Management within special recreation management areas focuses on providing recreation opportunities that would not otherwise be available to the public, reducing conflicts among users, minimizing damage to resources, and reducing visitor health and safety problems. The ERMA is an administrative unit that requires specific management consideration in order to address recreation use, demand, or recreation program investments. All other lands not designated as a SRMA or an ERMA are lands where recreation is not emphasized, however recreation activities may occur in equal emphasis with other resources and activities except on those lands closed to public use. The PLND lands are managed to allow recreation uses that are not in conflict with the primary uses of these lands and have minimal recreation program investment.				
Recreation and Visitor Services – Desired Outcomes (Goals and Objectives)				
• Public lands managed by the Billings Field Office provide a diverse array of benefits to the public, including economic, environmental, personal, and social ones. • The BLM policy is to develop and maintain cooperative relationships with national, state, and local recreation providers, tourism entities, and local recreational groups. • BLM's goal is to develop and maintain appropriate recreational facilities, balancing public demand, protection of public land resources, and fiscal responsibility. • The management direction is to emphasize and support collaborative public outreach, awareness events, and programs that promote public service and stewardship, and to encourage sustainable travel and tourism development with local communities and provide community-based conservation support for visitor service. The emphasis is placed on providing interpretive and informational signs and materials for public lands visitors, maintaining 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 them.				
	Recreation and Visitor Services – Management Common to All Alternatives			
	Identify portions of the planning area not delineated as an SRMA as Extensive Recreation Management Area (ERMA) or as an area where there is no formal recreation management occurring. ERMAs would be provided minimal management to protect resources and visitor health and safety, and minimize user conflicts. For ERMAs activity-level, interdisciplinary plans would be developed only when and where necessary to address emerging issues affecting public lands users or resources.			
	Conduct periodic accessibility, safety, and condition assessments in accordance with Bureau policy at developed recreation sites. Prioritize available funds to resolve deferred and corrective maintenance needs.			
	Allow non-commercial dispersed camping subject to length of stay limitations, without a permit on BLM-administered lands in the planning area, except where prohibited. Evaluate the need for future developed camping locations in SRMA plans, based on select criteria such as habitat, resources, cultural, and socio-economic needs.			
	Mineral exploration activities would be coordinated for timing to minimize conflicts during peak use periods (e.g., weekends, holidays, summer use season, etc.).			
	Cooperate with FWP, private landowners, and other partners to improve hunter access and the availability of public lands for hunting in accordance with EO13443. Lands closed to hunting are 51 acres at the Pompeys Pillar National Monument and 784 acres at Four Dances Natural Area SRMA/ACEC.			
	Use off-site interpretation, education, and outreach as a means to protect public resources.			
	Allow target shooting in appropriate areas and prohibit target shooting in areas with resource conflicts (refer to management actions by alternative below for areas available/prohibited to target shooting). The Billings Field office would not designate specific target shooting sites but would pursue or facilitate the transfer of fee title ownership of suitable areas commonly used for shooting areas, to interested local governments or organizations. The Billings Field office can also employ the patent provisions of the Recreation and Public Purposes (R&PP) Act, 43 U.S.C. § 1721, to convey ownership of lands for shooting ranges to non-profit organizations or local governments with the stipulation of non-revision of fee title and with no monitoring requirements by BLM (refer to the Land Tenure and Access section).			
	The Bureau of Land Management (BLM) would not issue permits or other land use authorizations for commercial services providing for the disposal of cremated remains on public lands. Individual, non-commercial scattering of cremated remains is subject to applicable state law and is considered casual use under 43 CFR 2920.0-5(k). Inquiries from individuals			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	and families to scatter cremated remains should be handled on a case-by-case basis. If the level of use associated with individual, non-commercial scattering of cremated remains exceeds casual use criteria and causes resource concerns, the BiFO may establish notification requirements to determine the extent of use and whether an authorization process for this activity needs to be implemented, and may provide guidelines to users about appropriate scattering procedures and locations. If warranted, the BiFO may establish a process for issuing letters of authorization through the Lands, Realty, and Cadastral Survey Division, after the appropriate level of public scoping, National Environmental Policy Act (NEPA) analysis, and consultation have been completed.			
	The landing of fixed wing aircraft and rotary wing helicopters, for non-emergency purposes, would be restricted to existing or designated roads. The landing of aircraft for non-casual, commercial use such as guiding or air taxi services would be addressed on a case-by-case basis in the development of an SRP. Develop an appropriate method to allocate air taxi operator and guiding permits, such as lottery, sealed bid, or ranking criteria.			
	Monitoring of recreation resources would continue to occur, with emphasis placed on developed recreation sites and SRMAs. Monitoring would include regular patrols to check on signing, visitor use, recreation related impacts, and user conflicts. Monitoring would also emphasize identification of areas with compliance problems. Actual visitor numbers and/or vehicle counts would be documented at developed sites for trend analysis. Monitoring of SRPs would be conducted for compliance with the terms, conditions, and stipulations of the SRP as well as annual monitoring and evaluation of compliance with administrative requirements. Periodic assessments would be made to ensure that uses in SRMAs and ERMAs are consistent with their management objectives.			
	Cultivation for wildlife habitat improvements at the Sundance Lodge Recreation Area and at Pompeys Pillar ACEC would continue. Changes in cultivation patterns, seasons of use, and type of activity, including termination of use, could occur during project level review.			
	All signs would conform to the sign policies, guidelines, directives, and plans (Appendix AC).			
Recreation and Visitor Services – Management Common to Action Alternatives				
	No current management decision provided	No Surface Occupancy for oil and gas leasing, exploration and development within agency-designated fishing access sites.		
	No current management decision provided	Close the following recreational areas to trapping: • Sundance Lodge Recreation Area • Four Dances Natural Area ACEC • 17 Mile Recreation Area Allow trapping in the other designated SRMAs		
	Special Recreation Management Areas			
	No current management decision provided	Special recreation management areas (SRMAs) management plans would be initiated within 5 years. Existing SRMA plans would be reviewed for consistency and revised as needed.		
	No current management decision provided	Distinct recreation settings, recreation objectives, recreational experiences, and activities for each SRMA and recreation management zone (RMZ) are identified in Appendix N.		
	No current management decision provided	Construction and maintenance of non-motorized recreational trails would be considered during the development of SRMA management plans.		

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Recreation and Visitor Services – Management Actions by Alternative				
	Manage the following areas as SRMAs (2 SRMAs – 1,171 acres) (Maps 80, 84, 85): • Sundance Lodge Recreation Area (387 acres) • Four Dances Natural Area/ ACEC (784 acres)	The following areas would be managed as SRMAs (6 SRMAs – 90,783 acres) (Maps 81, 84, 85, 86a, 90, 92,101) : • Sundance Lodge Recreation Area (387 acres) • Four Dances Natural Area/ ACEC (784 acres) • Shepherd Ah -Nei Recreation Area (4,680 acres) • Acton Recreation Area (3,697 acres) • Bundy Island (98 acres) • Pryor Mountain TMA (81,227 acres)	The following areas would be managed as SRMAs (11 SRMAs – 147,181 acres) (Maps 82, 84, 85, 86a, 88, 90, 92, 94, 98, 99, 100): • Sundance Lodge Recreation Area (387 acres) • Four Dances Natural Area ACEC (784 acres) • Shepherd Ah-Nei Recreation Area (4,680 acres) • Acton Recreation Area (3,697 acres) • Yellowstone River Corridor (½ mile corridor from centerline) (6,311 acres) • South Hills TMA (1,357 acres) • Mill Creek/Bundy TMA(34,239 acres) • Pryor Mountain TMA (81,227 acres) • Horsethief TMA (12,261 acres) • 17 Mile (2,080 acres) • Asparagus Point (158 acres)	The following areas would be managed as SRMAs (9 SRMAs – 110,862 acres) (Maps 83, 84, 85, 86a, 88, 90, 92, 94, 98, 99): • Sundance Lodge Recreation Area (387 acres) • Four Dances Natural Area ACEC (784 acres) • Shepherd Ah-Nei Recreation Area (4,680 acres) • Acton Recreation Area (3,697 acres) • Yellowstone River Corridor (½ mile corridor from centerline) (6,311 acres) • Asparagus Point (158 acres) • South Hills TMA (1,357 acres) • Pryor Mountain TMA (81,227 acres) • Horsethief TMA (12,261 acres)
	Manage the following 7 areas as ERMAs (105,460 acres) (Maps 86, 87, 89, 91, 93, 95, 97): • Shepherd Ah-Nei Recreation Area (4,680 acres) • Acton Recreation Area (3,697 acres) • South Hills TMA (1,357 acres) • Pryor Mountain TMA (81,227 acres) • Horsethief TMA (12,261 acres) • 17 Mile (2,080 acres) • Asparagus Point Area (158 acres)	Manage the following 5 areas as ERMAs (7,668 acres) (Maps 87, 93, 95, 97, 99a) : • Horsethief TMA (12,261 acres) • 17 Mile (2,080 acres) • Asparagus Point (158 acres) • Yellowstone River Corridor (½ mile corridor from centerline) (6,213 acres) • South Hills TMA (1,357 acres)	Manage the following areas as ERMAs: • None	Manage the following 2 areas as ERMAs (36,319 acres) (Maps 95, 100a): • 17 Mile (2,080 acres) • Mill Creek/Bundy TMA (34,239 acres)

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	All Lands not designated as SRMAs are managed as ERMAs. (327, 518 acres)	Manage the following areas as non-designated areas: The remaining public lands not identified above as SRMAs or ERMAs. (327,421 acres)	Manage the following areas as non-designated areas: The remaining public lands not identified above as SRMAs or ERMAs. (288,495 acres)	Manage the following areas as non-designated areas: The remaining public lands not identified above as SRMAs or ERMAs. (322,418 acres)
	No current management decision provided	Surface disturbing activities related to recreation facility development and maintenance, at developed recreation sites would be subject to mitigation guidelines.	Surface disturbing activities that benefit recreational facilities and visitor experiences would be allowed with an approved mitigation plan.	Surface disturbing activities related to facility development and maintenance would be subject to mitigation guidelines.
	NSO in developed recreation areas and areas receiving high concentrated use.	Oil and gas leasing, exploration and development activities would be allowed with No Surface Occupancy (NSO): • Sundance Lodge Recreation Area • Four Dances Natural Area ACEC • Shepherd Ah-Nei Recreation Area • Acton Recreation Area • Bundy Island • South Hills TMA • Pryor Mountain TMA	Oil and gas leasing, exploration and development allowed with a CSU, in developed recreation areas and SRMAs.	Oil and gas leasing, exploration and development would be allowed with an NSO stipulation in the following SRMAs: • Sundance Lodge Recreation Area • Four Dances Natural Area ACEC • Shepherd Ah-Nei Recreation Area • Acton Recreation Area • Yellowstone River Corridor: ½ mile corridor Oil and gas leasing, exploration and development allowed with a CSU: • Asparagus Point • Pryor Mountain TMA • Horsethief TMA • South Hills TMA
	Special Recreation Permits			
	The BLM would issue special recreation use permits as appropriate for commercial, competitive, and special events subject to guidelines in BLM Handbook 2930, resource capabilities, social conflict concerns, professional qualifications, public safety, and public needs. SRPs would only be allowed in priority habitat if they are consistent with the goals and objectives for that habitat or species.			
	Issuance of Special Recreation Permits and special stipulations attached per permit for both commercial and non-commercial permits would be determined by set monitoring indicators, BLM policies, and identified through site specific analysis (as per BLM Handbook 2930-1: BLM Manual Rel. 2-95 supersedes Rel 2-291, 8/7/2006, page 16.			
	No current management decision provided	Issue special recreation permits, as appropriate, in an equitable manner for specific recreational uses of public lands and related waters as a means to minimize user conflicts, control visitor use, protect recreation resources, and provide for private and commercial recreation use. "Activity level planning would be developed through an environmental review process with public involvement. This management approach would identify the necessary indicators to monitor all permit conditions of approval that include the standards and stipulations necessary to change operations in the future." Individual Special Recreation Permits (ISRP) would continue to be issued at Shepherd Ah-		

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		Nei per regulation of the Federal Land Recreation Enhancement Act (FLREA) and follow the business plan for Shepherd Ah-Nei.		
	Target Shooting: Areas Open/Closed			
	Four Dances Natural Area ACEC/SRMA			
	784 acres closed for resource and safety concerns. 0 acres open	784 acres closed for resource and safety concerns. 0 acres open Managed as SRMA		
	Sundance Lodge SRMA			
	387 acres closed for resource and safety concerns. 0 acres open	387 acres closed for safety concerns 0 acres open Managed as SRMA		
	Acton Recreation Area			
	3,697 acres closed for resource and safety concerns. 0 acres open	3,697 acres closed for resource and safety concerns. 0 acres open SRMA established for general recreation activities		
	Shepherd Ah-Nei Recreation Area			
	4,689 acres closed for recreation safety concern. 0 acres open	4,689 acres closed for recreation safety concerns. 0 acres open SRMA established for OHV and general primitive recreation.		
	South Hills Recreation Area			
	1,357 acres closed for safety concerns. 0 acres open	1,357 acres closed for safety concerns. 0 acres open SRMA established for OHV activities		
	Pompeys Pillar National Monument and ACEC			
	432 acres closed for resource concerns 0 acres open	432 acres closed for resource concerns 0 acres open Historical emphasis		
	17 Mile Recreation Area			
	0 acres closed 2,080 acres open – ERMA	0 acres closed 2,080 acres open SRMA established - Management emphasis on shooting	0 acres closed 2,080 acres open ERMA established - No management emphasis	

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Castle Butte ACEC			
	0 acres closed 184 acres open	184 acres closed for resource concerns 0 acres open		
	Weatherman Draw ACEC			
	0 acres closed 4,365 acres open	4,986 acres closed 0 acres open	12,277 acres closed 0 acres open	
	Petroglyph Canyon ACEC			
	0 acres closed 240 acres open	240 acres closed 0 acres open		
	Pryor Mountain Wild Horse Range and East Pryor ACEC (using East Pryor ACEC acreages in Alts A-C)			
	0 acres closed 29,550 acres open (PMWHR and ACEC)	8,301 acres closed for resource concerns 0 acres open (PMWHR and ACEC)	0 acres closed 32,767 acres open (PMWHR and ACEC)	Not allowed in T.8 S., R. 28 E., from Memorial Day through Labor day for resource concerns Approximately 6,720 acres (PMWHR and ACEC)
	Asparagus Point Area			
	2 acres closed for safety concerns (parking area) 156 acres open Managed as ERMA	2 acres closed for safety concerns (parking area) 156 acres open Managed as ERMA	2 acres closed for safety concerns (parking area) 156 acres open Managed as SRMA	2 acres closed for safety concerns (parking area) 156 acres open Managed as SRMA
	Stark Site ACEC			
	0 acres closed 799 acres open	799 acres closed for resource concerns 0 acres open	0 acres closed 799 acres open	799 acres closed for resource concerns 0 acres open
	Grove Creek ACEC			
	0 acres closed 8,251 acres open	8,251 acres closed for resource concerns 0 acres open	0 acres closed 9,445 acres open	0 acres closed 8,251 acres open
	Total Field Office BLM-administered public lands			
	11,348 acres closed to target shooting 422,185 acres open to target shooting (Map 102)	34,109 acres closed for resource/safety concerns (Map 103) 400,045 acres open to target shooting	24,049 acres closed for resource/safety concerns (Map 104) 410,105 acres open to target shooting	31,586 acres closed for resource/safety concerns (Map 105) 402,568acres open to target shooting

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Trails and Travel Management				
The BLM manages travel and transportation on public lands in accordance with existing laws, regulations and policies. Program policy guidance provides direction to the field for management and administration of all aspects of the travel management program. This guidance is developed at the National, State and District Office level, and includes regulations, manuals, handbooks, Strategic Action Plans, Instruction Memorandums, and Information Bulletins. The Billings Field Office Travel Management program would support the accomplishment of management objectives for all resource programs. Within this context, the Billings Field Office would identify a transportation system that supports the agency's mission, management of land and resource programs and their goals and objectives, and provides for appropriate public and administrative access. The BLM's present transportation network is largely inherited, created from past resource uses and public access patterns.				
Trails and Travel Management – Desired Outcomes (Goals and Objectives)				
• Manage access to balance public use and protect public land resources, • Promote safety for all public land users, and • Minimize conflicts among OHV users and other uses of public lands. • Goals and objectives would accomplish this by using partnerships with other land managing agencies, local governments, communities, and interest groups through a balanced approach, so as to protect public lands by minimizing impacts and resources while providing opportunities for the safe use and enjoyment of OHVs • The Billings Field Office would use a systematic process that considers the unique resource issues and social environments within each individual Travel Management Area (TMA) and integrate concepts of habitat connectivity into OHV planning to minimize habitat fragmentation.				
Trails and Travel Management – Management Common to All Alternatives				
	Motorized travel on BLM-administered land (outside of established TMAs) would be limited to existing roads and trails. Measureable limits of change that would occur to the resource as a result of these travel modes would include indicators based on Land Health Standards, accelerated soil erosion and/or other resource concerns and potential for natural rehabilitation. Site specific travel planning would be initiated. Site specific travel planning would be initiated when those limits are exceeded within a five (5) year period after the BiFO ROD is signed.			
	To protect resource values 28,631 acres would be managed as closed to motorized vehicle use and 405,523 acres would be managed as limited to motorized vehicle use (refer to the specific TMA sections below).			
	Modifications to a transportation network (routes, re-routes or closures) in the planning area where travel is limited to existing roads and trails may be made through activity-level planning.			
	Cooperatively develop public outreach programs to promote trail etiquette, environmental ethics and a responsible-use stewardship ethic (e.g., Tread Lightly, Leave No Trace, etc.).			
	BLM would continue to coordinate with MFWP in the Block Management program, or other access agreements with other landowners, as appropriate. Designated motorized routes would conform with seasonal travel limitations, based on annual block management agreements, as determined by the authorized officer on a case-by-case basis.			
	Administrative access would limit motorized use to BLM-authorized use only. BLM employees, permittees, contractors, personnel from other agencies and other motorized access needs authorized by the authorized officer, would be allowed for resource management, maintenance, inventory, monitoring, or compliance purposes. Public use on administrative access routes would be limited to non-motorized access.			
	Motorized wheeled cross-country travel to conduct BLM-authorized activities would require prior authorization			
	Upon completion of site-specific projects, roads used for commercial or administrative access on BLM-administered lands would be reclaimed, unless the route provides specific benefits for public access, minimizes impacts to the resource and would be considered on a case-by-case basis.			
	The BLM may close or restore unauthorized, user created roads and trails to prevent resource damage.			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Motorized off-road travel would be allowed for any military, fire, search and rescue, or law enforcement vehicle for emergency operations.			
	Special recreation permits for motorized events, competitive events, or organized group activities would be considered and addressed through site-specific analysis.			
	Non-motorized recreational trails would be considered during the development of SRMA management plans and travel management plans (refer to Recreation/Visitor Services section).			
	Motorized off-road big game retrieval would be authorized by the Field Manager on a case-by-case basis for individuals with a disabled hunter access permit (issued by FWP). Stipulations or limitations would be included in the authorization.			
	Oil and gas activities would comply with all motorized vehicle use and travel plan restrictions, including seasonal restrictions and areas closed to motorized travel. (CSU)			
	By BLM Manual 6330, WSAs do not allow for new surface disturbances and there is no cross-country OHV use. Use is restricted to the actual tread width.			
	Efforts would be made to acquire easements across private lands to provide for public access.			
	Motorized travel in designated SRMAs would be allowed on designated routes only.			
	Motorized travel for all activities would be allowed on designated or existing routes only. Livestock permittees building or maintaining fences as part of the implementation of a grazing permit or lease would be exempted.			
Trails and Travel Management – Management Common to Action Alternatives				
	No current management decision provided	BLM would manage to reduce open road densities in big game winter and calving ranges where they exceed 1.0 miles/square mile.		
	No current management decision provided	Snowmobile use in the decision area would be allowed, except where restricted, and would be subject to the following restrictions: avoid locations where wind or topographic conditions may have reduced snow depth and create situations where damage to vegetation or soils would occur, or where vegetation is taller than the protective snow cover. Ecologically sensitive areas would be closed to snowmobiling if resource damage caused or exacerbated by snowmobile activity is found to be occurring in these areas.		
	No current management decision provided	Where off-highway vehicles are causing or would cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability or other authorized uses, or other resources, the affected areas would be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence.		
	No current management decision provided	Site specific travel planning within Greater sage-grouse PPAs would be completed within a five (5) year period after the ROD is signed		
Trails and Travel Management – Management Actions by Alternative				
	Dispersed Camping			
	Motorized wheeled cross-country travel to a campsite is permissible within 300 feet of existing roads and trails. Site selection must be completed by non-motorized means and accessed by the most direct route.	Ecologically sensitive areas or other areas restricted to motorized use would be closed to dispersed camping if resource damage is found to be occurring in these areas.	Same as A.	Excluding WSAs and ACECs, motorized wheeled use off designated routes for the purposes of camping would be allowed only on previously disturbed areas, for a distance up to 50 feet from the centerline of the route. Ecologically sensitive areas or other areas

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	This does not apply where existing seasonal restrictions prohibit traveling off designated routes to a campsite.			restricted to motorized use would be closed to dispersed camping if resource damage is found to be occurring in these areas.
	Game Retrieval			
	Motorized off-road big game retrieval not allowed for the general public.	Motorized off-road big game retrieval would not be allowed for the general public.	Motorized off-road big game retrieval would be allowed within 300 feet of an open route, excluding WSAs (where it is not allowed).	Same as Alternative B.
	Travel Management Areas (TMAs)			
	No current management decision provided	Establish 11 Travel Management Areas (TMAs) to minimize impacts and provide a spectrum of motorized and non-motorized recreational opportunities (Map 106). (refer to Glossary – Travel Management Areas - for definitions of terminology)		
	No current management decision provided	Motorized travel in TMAs would be limited to designated roads and trails, except in designated open areas (ex: South Hills OHV Area).		
	No current management decision provided	An implementation and monitoring plan would be initiated for the TMAs within 3-5 years of the ROD. The plan would include signing, mapping, information, and education, and monitoring of impacts associated with continued use on designated open routes, etc. Implementation plan would also identify criteria for route variances specific to each TMA.		
	No current management decision provided	Upon project completion, roads used for commercial or administrative access on BLM-administered lands would be reclaimed, unless the route provides specific benefits for public access, minimizes impacts to the resource and would be considered on a case-by-case basis.		
	No current management decision provided	The BLM would close or restore unauthorized or user created roads and trails to prevent resource damage.		
	No current management decision provided	Variances to travel plan or route designations would be issued based on essential agency administrative actions, data variances due to route inventory, boundary adjustments, etc., as determined by the authorized officer.		
	No current management decision provided	Travel management planning is not intended to provide evidence bearing on or addressing the validity of any R.S. 2477 assertions. R.S. 2477 rights are adjudicated through a separate administrative process. The travel planning process analyzed resources, resource uses and associated access to public lands and waters. At such time as a decision is made on any R.S. 2477 assertions, the BLM would adjust its travel routes accordingly (refer to Appendix O – Travel Management).		
	Gage Dome/Colony Road TMA			
	No established boundary for Gage Dome/Colony Road area.	**Gage Dome/Colony Road TMA** Management Objectives: reduce road density to minimize impacts to sage-grouse habitat and other resource values. Manage the TMA to provide recreational opportunities and access while protecting sage-grouse habitat.		
	Motorized travel limited to existing roads and trails – 96 miles (Map 107).	The following routes would be designated in the Gage Dome/Colony Road TMA (Map 108): • Open (additional management): 31 miles • Admin Use Only: 45 miles	The following routes would be designated in the Gage Dome/Colony Road TMA (Map 109): • Open: 75 miles • Open (additional management): 15 miles	The following routes would be designated in the Gage Dome/Colony Road TMA (Map 110): • Open (additional management): 67 miles

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		• Closed: 20 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	• Admin Use Only: 6 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	• Admin Use Only: 29 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.
	Horsethief TMA Management Objectives: provide a range of recreational and access opportunities while minimizing impacts to cultural and heritage values and other resources. This TMA was expanded to include Stark Site ACEC.			
	Motorized use allowed on designated roads: 36 miles (Map 111)	The following routes would be designated in the Horsethief TMA (Map 112): • Open (additional management): 10 miles • Admin Use Only: 14 miles • Closed: 13 miles • Non-motorized use only: 1 mile To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	The following routes would be designated in the Horsethief TMA (Map 113): • Open: 32 miles • Open (additional management): 3.4 miles • Admin Use Only: 1 mile • Closed: 0.1 mile To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	The following routes would be designated in the Horsethief TMA (Map 114): • Open: 8.4 miles • Open (additional management): 14 miles • Admin Use Only: 14 miles • Closed: 0.1 mile To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.
	No current management decision provided	A rock crawl area would not be designated.	A designated rock crawl area would be established – 1.5 miles (open area for technical 4WD by permit). The area would be limited to technical four-wheel drive vehicles only. This activity would be confined to a single location where it would be managed and monitored.	A rock crawl area would not be designated. Special recreation permits for motorized events or organized group activities would be considered on a case-by-case basis.
	Acton TMA Management Objectives**:** provide a range of recreational and access opportunities while minimizing impacts to cultural properties and other resource values.			
	Motorized use allowed on designated roads: 7.1 miles Closed: 1.5 miles (Map 115)	The following routes would be designated in the Acton TMA (Map 116): • Open (cond.): 5.1 miles • Closed: 3.5 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	The following routes would be designated in the Acton TMA (Map 117): • Open (additional management): 8.6 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	The following routes would be designated in the Acton TMA (Map 118): • Open (seasonal/conditions restriction) 6.8 miles • Admin Use Only: 1 mile • Closed: 0.8 mile To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.
	Shepherd Ah-Nei TMA. This TMA is delineated into three sub-regions, based on landscape patterns, use, and resource considerations. Management Objectives: minimize user conflicts and impacts to resources while providing opportunities for both motorized and non-motorized activities through three distinct			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	management zones.			
	Shepherd Ah-Nei Area I: 53 miles Limited to motorized vehicles less than 50" wide): Motorized use limited to existing roads and trails (Map 119)	The following routes would be designated in the Shepherd Ah-Nei TMA Area I: 53 miles: Limited to existing roads and trails (conditional and vehicle (less than 50" wide) restrictions apply). To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP (Map 120).		
	Shepherd Ah-Nei Area II: Closed to all motorized use	Shepherd Ah-Nei Area II: Admin Use only		
	Shepherd Ah-Nei Area III Limited to motorized use (by permit only)	Shepherd Ah-Nei Area III: Admin Use Only		
	Mill Creek/Bundy TMA			
	No established boundary for Mill Creek/Bundy area	**Mill Creek/Bundy TMA** Management Objectives: improve access and provide a range of recreational opportunities. Protect cultural and resource habitat values within the Castle Butte ACEC boundaries. Emphasis would be placed on minimizing impacts to cultural properties and other resource values while providing access for the public, permittees, non-federal landowners, and administrative needs.		
	Motorized travel limited to existing roads and trails: 141 miles (Map 123)	The following routes would be designated in the Mill Creek/Bundy TMA (Map 124): • Open (additional management): 20 miles • Admin Use Only: 54 miles • Closed: 67 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	The following routes would be designated in the Mill Creek/Bundy TMA (Map 125): • Open: 70 miles • Open (additional management): 37 miles • Admin Use Only: 32 miles • Closed: 2 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.	The following routes would be designated in the Mill Creek/Bundy TMA (Map 126): • Open: 8 miles • Open (additional management): 61 miles • Admin Use Only: 67 miles • Closed: 5 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP.
	South Hills TMA			
	Manage for motorcycle use.	**South Hills TMA** Management Objectives: minimize user conflicts and impacts to resources while providing opportunities for both motorized and non-motorized activities		
	Manage South Hills open to cross country travel - Motorcycles only 1,097 acres Motorcycle Use only 260 acre Buffer Area - Closed to Motorized Use (adjacent to residential area) (Map 127)	South Hills would be closed to motorized travel (1,357 acres closed) To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 128)	Manage South Hills open to cross country travel - Motorcycles only 1,296 acres Motorcycle Use only 61 acre Buffer Area - Closed to Motorized Use (adjacent to residential area) To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 129)	Manage South Hills open to cross country travel - Motorcycles only 982 acres Motorcycle Use only 375 acres Buffer area - Closed to Motorized Use (adjacent to residential area) To see acres of the total miles, refer to the travel area maps in the Map Section of the

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
				RMP. (Map 130)
	Tin Can Hill TMA			
	No established boundary for Tin Can Hill area.	**Tin Can Hill TMA** Management Objectives: to provide a range of recreational and access (public and administrative) opportunities. Minimize impacts to cultural properties and other resource values and minimize conflicting uses.		
	Motorized travel is not authorized; a temporary closure in place pending resource management plan analysis Motorized travel limited to existing roads and trails (Map 131)	The following routes would be designated in the Tin Can Hill TMA: • Admin Use Only: 3 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 132)	The following routes would be designated in the Tin Can Hill TMA: • Open (additional management): 2.5 miles • Admin Use Only: 0.5 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 133)	The following routes would be designated in the Tin Can Hill TMA: • Open (seasonal restrictions): 1.5 miles • Admin Use Only: 0.5 miles • Closed: 1 mile To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 134)
	Cottonwood/Weatherman Draw TMA			
	No established boundary for Cottonwood/Weatherman Draw area	This area would be delineated into three sub-regions to address varying resource issues, access and recreational opportunities. Sub-Region I - Weatherman Draw/Castle Coulee. Management objectives: protect cultural values and resources within the ACEC. Minimize impacts to cultural values, fragile and erosive soils and other resources within the sub-region Sub-Region II - Hollenbeck. Management objectives: provide recreational opportunities with emphasis on minimizing impacts to sage-grouse habitat, fragile and erosive soils, and other resource values Sub-Region III - Silver Tip. Management objectives: provide for motorized recreational opportunities with emphasis on minimizing impacts to fragile and erosive soils, and other resource values		
	Weatherman Draw ACEC: motorized travel limited to administrative use only. No mechanized travel: 24 miles Motorized travel limited to existing roads and trails: 285 miles (Map 135)	The following routes would be designated in the Cottonwood/Weatherman TMA: • Open (to motorcycles only): 10 miles • Open (additional management): 123 miles • Admin Use Only: 68 miles • Closed: 108 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 136)	The following routes would be designated in the Cottonwood/Weatherman TMA: • Open: 196 miles • Open (to motorcycles only): 6 miles • Open (vehicles 50" or less): 10 miles • Open (additional management): 82 mi. • Admin Use Only: 14 miles • Closed: 1 mile To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 137)	The following routes would be designated in the Cottonwood/Weatherman TMA: • Open: 103 miles • Open (to motorcycles only): 3 miles • Open (vehicles 50" or less): 10 miles • Open (additional management): 104 mi • Admin Use Only: 75 miles • Closed: 14 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 138)

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	Warren TMA			
	No established boundary for Warren area	**Warren TMA** Management Objectives: to provide recreational opportunities with emphasis on protecting key sage-grouse habitat while minimizing impacts to other resources values. Maintain current level of access.		
	Motorized travel limited to existing roads and trails: 34 miles (Map 139)	The following routes would be designated in the Warren TMA: • Admin Use Only: 18 miles • Closed: 16 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 140)	The following routes would be designated in the Warren TMA: • Open: 29 miles • Open (additional management): 4 miles • Admin Use Only: 0.5 miles • Closed: 0.5 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 141)	The following routes would be designated in the Warren TMA: • Open: 1 mile • Open (additional management): 9 miles • Admin Use Only: 23 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 142)
	Pryor Mountain TMA Management Objectives: to protect wilderness values, cultural/heritage/paleontological resources, visual characteristics, special status plants, fragile and erosive soils, wild horses, and wild horse habitat.			
	Motorized travel limited to designated roads and trails (Map 143): • Open: 119 miles • Admin Use Only: 2.5 miles • Closed: 103.5 miles	The following routes would be designated in the Pryor Mountain TMA: • Open (additional management): 71 miles • Open (seasonal restrictions): 7 miles • Admin Use Only: 28.5 miles • Closed: 118 miles • Non-motorized use only: 0.5 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 144)	The following routes would be designated in the Pryor Mountain TMA: • Open: 175 miles • Open (additional management): 17 miles • Open (seasonal restrictions): 1.2 miles • Admin Use Only: 30.3 miles • Closed: 1.5 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 145)	The following routes would be designated in the Pryor Mountain TMA: • Open: 39 miles • Open (vehicles 50" or less): 2.5 miles • Open (additional management): 88 miles • Open (seasonal restrictions): 0.5 miles • Admin Use Only: 60 miles • Closed: 35 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 146)
	Grove Creek TMA			
	No established boundary for the Grove Creek area.	**Grove Creek TMA** Management Objectives: to minimize impacts to geologic and visual resources, special status plants, and cultural and wildlife values, including sage-grouse, while providing casual, non-commercial public recreational access.		
	Motorized travel limited to existing roads and trails: 73 miles (Map 147)	The following routes would be designated in the Grove Creek TMA: • Open (additional management): 18 miles	The following routes would be designated in the Grove Creek TMA: • Open: 38 miles • Open (additional management): 32	The following routes would be designated in the Grove Creek TMA: • Open: 12 miles • Open (additional management): 25

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		• Admin Use Only: 9 miles • Closed: 46 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 148)	miles • Admin Use Only: 2.5 miles • Closed: 0.5 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 149)	miles • Admin Use Only: 32 miles • Closed: 4 miles To see acres of the total miles, refer to the travel area maps in the Map Section of the RMP. (Map 150)
		Routes may provide non-commercial access to private property; however, even though route has been designated as part of the official BLM travel management network, such designation does not constitute or afford the rights of a legally or officially recognized easement or ROW.		
Renewable Energy				
The Bureau of Land Management has placed increased emphasis on development of renewable energy resources to meet the provisions of the Energy Policy Act of 2005 and the Secretary of the Interior's goals as set out in Secretarial Order No. 3285, as amended. Specific areas administered by the Billings Field Office are valuable given their high wind potential, but development may be constrained due to the presence of other significant resources. Allocations and/or management actions for renewable energy sources such as geothermal and biomass in the Billings Field Office are addressed in the Forest and Woodlands and Leasable Minerals sections, respectively. Specific allocations and management actions for solar resources are not discussed in this planning document given the low solar insolance levels in Montana that make commercial development unlikely, though the exclusion and avoidance areas outlined for renewable energy would be utilized should a solar development application be received. The allocations and management actions outlined in the alternatives below provide varying degrees of a Renewable Energy program focused on wind energy development in the Billings Field Office. Designation by BLM of renewable energy exclusion and avoidance areas would minimize adverse impacts to important resource values. Opportunities for testing and development with the least resource conflicts are greatest in open areas based on known resources. Proposals in those areas would likely encounter fewer resource issues and associated mitigation measures. BLM would cooperate with project proponents and other agencies and stakeholders to promote the use of these resources in the Billings Field Office, consistent with goals and objectives for other resources.				
Renewable Energy – Desired Outcomes (Goals and Objectives)				
• Provide opportunities for the development of renewable energy resources from sources such as wind, biomass, and solar, while minimizing adverse impacts to other resource values. • Make lands available for renewable energy development, consistent with goals and objectives of other resources. • In cooperation with project proponents, promote and enhance scientific knowledge of renewable energy resources in the planning area.				
Renewable Energy – Management Common to All Alternatives				
	Proposals for renewable energy development would be considered, except in exclusion areas. Proposals would not be entertained in designated exclusion areas. Proposals in avoidance areas could be subject to substantial special stipulations given known resource values.			
	Wind and solar applications would be processed under the lands and realty right-of-way regulations found at 43 CFR 2800, as would biomass energy generating facilities.			
	Geothermal development would be considered under the geothermal regulations found at 43 CFR 3200; utilization of biomass would generally be authorized under regulations for the forestry program found at 43 CFR 5400, and hydropower applications would be considered under provisions of the Federal Power Act, as amended, in coordination with the Federal Regulatory Energy Commission (FERC).			
	Programmatic policies and best management practices identified in the Record of Decision for Implementation of a Wind Energy Development Program as well as BLM policies and directives regarding wind energy would be used in processing all wind energy applications.			

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Renewable Energy – Management Actions by Alternative				
	Manage 47,496 acres as exclusion areas (closed) to renewable energy authorizations, including: • WSAs ▸ Big Horn Tack-On WSA ▸ Burnt Timber Canyon WSA ▸ Pryor Mountain WSA ▸ Twin Coulee WSA • National Historic Trails ▸ Nez Perce NHT ▸ Lewis & Clark NHT ▸ Pompeys Pillar NM • ACECs ▸ Bridger Fossil Area ACEC ▸ East Pryor ACEC ▸ Meeteetse Spires ACEC ▸ Petroglyph Canyon ACEC ▸ Stark Site ACEC ▸ Weatherman Draw ACEC (Map 153)	Manage 345,491 acres as exclusion areas (closed) to renewable energy authorizations, including: • WSAs* ▸ Big Horn Tack-On WSA ▸ Burnt Timber Canyon WSA ▸ Pryor Mountain WSA ▸ Twin Coulee WSA *If released by an Act of Congress, lands within WSA boundaries would remain closed. • National Historic Trails ▸ Nez Perce NHT ▸ Lewis & Clark NHT ▸ Pompeys Pillar NM • ACECs ▸ Bridger Fossil Area ACEC ▸ Castle Butte ACEC ▸ East Pryor ACEC ▸ Four Dances ACEC ▸ Grove Creek ▸ Meeteetse Spires ACEC ▸ Petroglyph Canyon ACEC ▸ Pompeys Pillar NM/ACEC ▸ Pryor Foothills ACEC ▸ Stark Site ACEC ▸ Weatherman Draw ACEC ▸ Wild and Scenic River Eligible/Suitable Segments ▸ Lands with Wilderness Characteristics ▸ Pryor Mountain Wild Horse Range (PMWHR) • Cultural Sites ▸ Steamboat Butte ▸ Bruder-Janich Site ▸ Paul Duke Site ▸ Demi-John Flat NR District ▸ Bighorn Mouth North Cliffs Rock Art	Manage 82,019 acres as exclusion areas (closed) to renewable energy authorizations, including: • WSAs ▸ Big Horn Tack-On WSA ▸ Burnt Timber Canyon WSA ▸ Pryor Mountain WSA ▸ Twin Coulee WSA • National Historic Trails ▸ Nez Perce NHT ▸ Lewis & Clark NHT ▸ Pompeys Pillar NM • ACECs ▸ Bridger Fossil Area ACEC ▸ Castle Butte ACEC ▸ East Pryor ACEC ▸ Four Dances ACEC ▸ Grove Creek ▸ Meeteetse Spires ACEC ▸ Petroglyph Canyon ACEC ▸ Pompeys Pillar NM/ACEC ▸ Stark Site ACEC ▸ Weatherman Draw ACEC ▸ Wild and Scenic River Eligible/Suitable Segments ▸ Lands with Wilderness Characteristics ▸ Pryor Mountain Wild Horse Range (PMWHR) • Cultural Sites ▸ Steamboat Butte ▸ Bruder-Janich Site ▸ Paul Duke Site ▸ Demi-John Flat NR District ▸ Bighorn Mouth North Cliffs Rock Art Site ▸ Hoskins Basin Archaeological District	Manage 78,088 acres as exclusion areas (closed) to renewable energy authorizations, including: • WSAs* ▸ Big Horn Tack-On WSA ▸ Burnt Timber Canyon WSA ▸ Pryor Mountain WSA ▸ Twin Coulee WSA *If released by an Act of Congress, lands within WSA boundaries would remain closed. • National Historic Trails ▸ Nez Perce NHT ▸ Lewis & Clark NHT ▸ Pompeys Pillar NM • ACECs ▸ Bridger Fossil Area ACEC ▸ Castle Butte ACEC ▸ East Pryor ACEC ▸ Four Dances ACEC ▸ Grove Creek ACEC ▸ Meeteetse Spires ACEC ▸ Petroglyph Canyon ACEC ▸ Pompeys Pillar ACEC ▸ Pryor Foothills ACEC ▸ Stark Site ACEC ▸ Weatherman Draw ACEC ▸ Wild and Scenic River Eligible/Suitable Segments ▸ Lands with Wilderness Characteristics ▸ Pryor Mountain Wild Horse Range (PMWHR) • Cultural Sites ▸ Steamboat Butte ▸ Bruder-Janich Site ▸ Paul Duke Site

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		Site ► Hoskins Basin Archaeological District • Greater Sage-Grouse: PPAs, RAs and GHAs • VRM Class I areas • Slopes >30% and/or fragile soils with low reclamation potential and highly erodible characteristics. • Cave and Karst Area (Map 154)	• VRM Class I areas • Slopes >45% and/or fragile soils with low reclamation potential and highly erodible characteristics. (Map 155)	► Demi-John Flat NR District ► Bighorn Mouth North Cliffs Rock Art Site ► Hoskins Basin Archaeological District • VRM Class I areas (Map 156)
	Manage 25,144 acres identified as avoidance areas for other lands and realty authorizations as avoidance for renewable energy authorizations. If authorizations are allowed, special stipulations and mitigation measures along with standard stipulations and BMPs would be applied as necessary through site-specific analysis. Avoidance areas include: • Asparagus Point, Steamboat Butte, Portion of Acton, Portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains • Hoskins Basin Archeological District, Demi-John Flat Archeological District, Beartooth Mountain Front (2 mile strip bordering the eastern boundary of the Custer National Forest). • Pompeys Pillar ACEC • Four Dances ACEC (Map 153)	Manage 85,461 acres as avoidance areas for renewable energy authorizations, subject to special stipulations and mitigation beyond standard stipulations and BMPs applied through site specific analysis. Special stipulations and mitigation include provisions such as timing limitations, controlled surface use, and other constraints/restrictions consistent with fluid minerals stipulations that would be applied to protect the following particular resources/habitats: • Bald/Golden Eagles • Ferruginous Hawks • Sage-Grouse Winter Range • Big Game Winter Range • Big Game Parturition • Bighorn Sheep Habitat • Sharp-tailed grouse nesting • Peregrine Falcon • Mountain Plover • Raptor Nests Other avoidance areas include: • Asparagus Point, Steamboat Butte, Portion of Acton, Portion of Shepherd Ah-Nei, Bad Canyon, East and Red	Manage 326,722 acres as avoidance areas for renewable energy authorizations, subject to special stipulations and mitigation beyond the standard stipulations and BMPs applied through site-specific analysis. Special stipulations and mitigation include provisions such as timing limitations, controlled surface use, and other constraints/restrictions consistent with fluid minerals stipulations that would be applied to protect the following particular resources/habitats: • Greater Sage-Grouse PPAs, RAs and GHAs • Bald/Golden Eagles • Ferruginous Hawks • Sage-Grouse Winter Range • Big Game Winter Range • Big Game Parturition • Bighorn Sheep Habitat • Sharp-tailed grouse • Peregrine Falcon • Mountain Plover • Raptor Nests Other avoidance areas include:	Manage 331,088 acres as avoidance areas for renewable energy authorizations, subject to special stipulations and mitigation beyond standard stipulations and BMPs applied through site-specific analysis. Special stipulations and mitigation include provisions such as timing limitations, controlled surface use, and other constraints/restrictions consistent with fluid minerals stipulations that would be applied to protect the following particular resources/habitats: • Greater Sage-Grouse PPAs, RAs and GHAs • Bald/Golden Eagles • Ferruginous Hawks • Sage-Grouse Winter Range • Big Game Winter Range • Big Game Parturition • Bighorn Sheep Habitat • Sharp-tailed grouse • Peregrine Falcon • Mountain Plover • Raptor Nests Other avoidance areas include:

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
		Pryor Mountains • VRM Class II and III areas • Within ½ mile of riparian areas and wetlands, designated 100 year flood plains and on water bodies and streams, except activities are not in conflict with the desired outcomes. • Timing limitations apply to development of facilities, but not to operation or maintenance. (Map 154)	• Asparagus Point, Steamboat Butte, Portion of Acton, Portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains • Pryor Foothills ACEC • Cave and Karst areas • VRM Class II areas • Within riparian areas or wetlands, designated 100 year floodplains and on water bodies and streams, except activities that are not in conflict with desired outcomes. • Timing limitations apply to development of facilities, but not to operation or maintenance. (Map 155)	• Asparagus Point, Steamboat Butte, Portion of Acton, Portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains, • Cave and Karst areas • VRM Class II areas • Within ¼ mile of riparian areas and wetlands, designated 100 year flood plains and on water bodies and streams, unless activities are not in conflict with desired outcomes. • Surface disturbance on slopes >30%, soils with low reclamation potential, and highly erodible characteristics would be avoided whenever possible. If disturbance could not be avoided an approved mitigation and reclamation plan would be required prior to activities taking place. • Timing limitations apply to development of facilities, but not to operation or maintenance. (Map 156)
	Manage 361,514 acres as Open to renewable energy, applying standard ROW terms and conditions and wind or other BMPs, including in the following areas (Map 153): • Greater Sage-Grouse PPAs, RAs and GHAs • ACECs ▶ Castle Butte ▶ Grove Creek ▶ Pryor Foothills • WSR Eligible Segments ▶ Bad Canyon ▶ Bear Canyon ▶ Crooked Creek (upper)	Manage 0 acres as Open to renewable energy. (Map 154)	Manage 21,349 acres as Open to renewable energy, applying standard ROW terms and conditions and wind or other BMPs. (Map 155)	Manage 20,937 acres as Open to renewable energy, applying standard ROW terms and conditions and wind or other BMPs. (Map 156)

2-6.2 Detailed Table of Alternatives (Resource Uses and Support)

Record#	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	▶ Crooked Creek (lower) ▶ Gyp Springs ▶ Piney Creek ▶ Yellowstone River/Pompeys Pillar			
Transportation and Facilities				
The BLM public lands are accessible by a variety of National, State, local and agency road and trail networks. The BLM also has a number of developed facilities to administer its programs; they include bridges, major culverts, buildings, recreation and administrative sites, and dams. All facilities, roads, and trails are managed through the Facility Asset Management System (FAMS) program. All facilities are identified as public property.				
Transportation and Facilities – Desired Outcomes (Goals and Objectives)				
• Manage roads, primitive roads and trails for public access or administrative needs, while maintaining or protecting resource values, in coordination with other federal agencies, state and local governments and private landowners. This action would be done in coordination with the development and implementation of the TMAs. • Ensure BLM facilities are maintained to meet public health and safety requirements.				
Transportation and Facilities – Management Common to All Alternatives				
	BLM-administered roads included in the transportation system would be assigned maintenance intensities, as needed. These roads would be managed in accordance with objectives identified in the travel management areas (TMAs), assigned maintenance intensities and in consideration of resources issues and available funding.			
	Roads and trails would be inspected on an established schedule in accordance with the Bureau's Condition Assessment guidance. The results of the condition assessments would be reviewed to determine the need for reconstruction, maintenance, or disposal.			
	BLM authorized recreation sites, administrative sites, buildings, bridges, roads, and trails would be maintained within Bureau standards to reduce deferred maintenance costs; meet public health and safety requirements; provide universal accessibility as appropriate and to enhance visitor experiences. These activities would be coordinated with other federal, state and local government agencies, private landowners and the general public as needed.			
	Bridges and major culverts would be inspected on an established schedule in accordance with the Bureau's Condition Assessment guidance. The results of the condition assessments will be reviewed to determine the need for reconstruction, maintenance or disposal. Condition assessments and Emergency Action Planning for hazard class dams will be performed as required by the latest version of the 9177 (Dam Safety) manual section and associated handbooks. The results of the condition assessments will be reviewed to determine the need for reconstruction, maintenance, or disposal.			
	New roads and trails determined to be necessary for permanent or long-term use as part of BLM's transportation system would be constructed subject to NEPA and approved engineering standards. Consideration would be given to use demands, location, safety and resource constraints when determining the level of road necessary, in accordance with BLM Manuals 9113 and 9114.			
	Lands available or suitable for transportation facilities within the planning area would be identified. Road repair, road rehabilitation, road construction, and maintenance standards appropriate to specific areas would be identified as well as any limitations.			
	If an existing road, primitive road or trail is substantially contributing to resource impacts, the road would be considered for re-design, re-routing, closure, or decommissioning to minimize the adverse impacts.			
	Provide adequate administrative and other facilities to accommodate management needs, based on management analysis, to maintain, replace, construct, lease; including asset disposal.			

2-6.3 Detailed Table of Alternatives: Special Designations

Record#	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Special Designations				
Evaluate areas of interest needing special management for special designation				
	Retain 9 ACECs for a total of 37,896 acres	Retain 9 ACECs and designate 3 new ACECs for a total of 181,175 acres	Retain 9 ACECs and designate 2 new ACECs for a total of 67,079 acres	Retain 9 ACECs and designate 2 new ACECs for a total of 38,786 acres

2-6.3 Detailed Table of Alternatives: Special Designations

Pompeys Pillar National Monument (NM) and ACEC					
Record#	**Management Activity**	**Alternative A (432 acres)**	**Alternative B (432 acres)**	**Alternative C (432 acres)**	**Alternative D (432 acres)**
Pompeys Pillar NM and ACEC – Desired Outcomes (Goals and Objectives)					
Pompeys Pillar would be managed to protect the historical, cultural, and biological values, including its outstanding viewsheds and unique resources, while providing opportunities for interpretation, education, and enjoyment of the area for present and future generations.					
Pompeys Pillar NM and ACEC – Management Common to All Alternatives					
	Manage Pompeys Pillar NM (51) acres to protect the historical and cultural objects for which it was nominated a National Monument.				
	All federal lands and interest in lands within the boundaries of the PPNM (51 acres) are withdrawn from all forms of entry, location, selection, sale or leasing or other disposition under the public land laws, subject to valid existing rights. Consider acquiring minerals from willing sellers for the monument and ACEC.				
	Promote partnerships and coordination efforts with other agencies and organizations to enhance the overall management of Pompeys Pillar.				
Pompeys Pillar NM and ACEC – Management Actions by Alternative					
	Management Zones	**Historic (Natural) Zone** – (29 acres). Objective: provide visitor access to Clark's signature and other historic inscriptions/rock art, and to enhance the visitors' experience by providing landscapes that appear similar to the natural setting Clark viewed in 1806. **Historic (Developed) Zone** – (54 acres). Objective: provide an area where most facilities would be placed. Facilities would be designed to enhance visitor experiences. **General Management Zone** – (349 acres). Objective: improve and/or maintain wildlife habitat condition, enhance recreation opportunities and utilize agriculture to further general management. (Map 157)	**Zone A:** – 25 acres Objective: Provide visitor access to Clark's signature and other historic inscriptions/rock art, and enhance the visitors' experience through providing landscapes that appear similar to the natural setting Clark viewed in 1806. **Zone B:** – 58 acres Objective: Provide a setting where most facilities would be placed. Facilities would be designed to enhance visitor experiences and services. **Zone C:** – 349 acres Objective: Improve and/or maintain wildlife habitat, enhance recreational opportunities, visitor services, and wildlife viewing. Priority may be given to visitor service needs, including facility development, if needed. (Map 158)		

2-6.3 Detailed Table of Alternatives: Special Designations

Pompeys Pillar National Monument (NM) and ACEC					
Record#	**Management Activity**	**Alternative A (432 acres)**	**Alternative B (432 acres)**	**Alternative C (432 acres)**	**Alternative D (432 acres)**
	Land use authorization	Exclusion Area - Historic Zone (29 acres), except those necessary to serve the site facilities. Avoidance area - remainder of ACEC (403 acres), and restricts ROW to a 500' wide path paralleling the southern boundary of the public lands along Highway 312).	Exclusion area - Zone A and B (83 acres), except those necessary to serve the site facilities. Avoidance (1) Area - Zone C (349 acres), and restricts ROW to a 500' wide path paralleling the southern boundary of the public lands along Highway 312).		
	Land tenure	Land disposals are not allowed - with the possible exception of the three acre parcel south of interstate 94			
	Off-highway vehicles	Limited to designated roads and trails (administrative use or other authorized use allowed).	Limited to designated roads and trails (2). Administrative use or other authorized use allowed on a case-by-case basis.		
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	NHL (6 acres) managed as VRM Class II. Remainder of ACEC managed as VRM Class III.			
	Plant collecting	No current management decision provided	Not allowed.	Not allowed in the Zone A and Zone B. Limited in Zone C (3)	
	Fluid Mineral leasing	Monument (51 acres) closed to leasing, subject to valid existing rights. NSO for the remainder of the ACEC.			
	Locatable minerals	Monument (51 acres) withdrawn, subject to valid existing rights Remainder of ACEC (381 acres) – No current management decision provided	Monument (51 acres): continue withdrawal, subject to valid existing rights. Remainder of ACEC (381 acres): close and recommend withdrawal from mineral entry, subject to valid existing rights.		
	Solid leasable minerals	Monument (51 acres) withdrawn, subject to valid, existing rights. Remainder of ACEC, No current management decision provided.	Monument (51 acres): continue withdrawal from mineral entry, subject to valid existing rights. Remainder of ACEC (381 acres): closed and withdrawal from mineral entry, subject to valid existing rights.		
	Mineral materials sales and permits	Monument (51 acres): Not allowed Remainder of ACEC, No current management decision provided.	Monument (51 acres): Not allowed Remainder of ACEC (381 acres): Not allowed		
	Renewable energy	No current management decision provided	Closed (6) to commercial renewable energy facilities and development.		
	Geophysical exploration	Monument (51 acres) withdrawn, subject to valid existing rights. Remainder of ACEC, No current management decision provided.	Not allowed		
	Fire suppression	Water use only within NHL (6 acres). Appropriate fire management for the ACEC (full protection strategies).	Water use only within monument (51 acres). No heavy equipment in riparian area. Full range of fire management activities would be used in remainder of ACEC.		

2-6.3 Detailed Table of Alternatives: Special Designations

Pompeys Pillar National Monument (NM) and ACEC					
Record#	**Management Activity**	**Alternative A (432 acres)**	**Alternative B (432 acres)**	**Alternative C (432 acres)**	**Alternative D (432 acres)**
	Fuels management	No current management decision provided.	Fuels management (8) allowed in the entire ACEC. Prescribed fire allowed only in Zone C.	Fuels management and prescribed fire (8) may be allowed in the entire ACEC.	
	Fuel wood cutting/wood product sales	Not allowed			
	Livestock grazing	Allowed only as a management tool.	Livestock grazing would not be allowed.	Livestock grazing may be allowed on a temporary basis, for the treatment of noxious weeds, or as a prescription to meet site specific vegetation or other resource management goals.	
	Range improvements	No current management decision provided	Allowed (5)		
	Noxious/Invasive weed treatments	Utilize integrated weed management to reduce the incidence of noxious/non-native species.	Allowed (5) (10)		
	Animal trapping/traplines	Allowed	Allowed in Zone C by authorization only. Allowed for administrative purposes in the entire ACEC.		
	Hunting	Hunting is allowed with restrictions for public safety	Hunting would be allowed in Zone C only. Management restrictions would be implemented in the future to ensure public safety.		
	Target shooting	Not allowed			
	Non-commercial collection of common invertebrate and plant fossils	No current management decision provided.	Not allowed		
	Cremains scattering	No current management decision provided	Not permitted		
	Special Recreation Permits	Allowed	Allowed (5)		
	Other permitted activities	Allowed	Allowed (5)		
	Transportation	Allowed to meet road condition standards.	Allowed (4)		
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes:

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.

2 Off-highway vehicle, including bicycle, use would be limited to designated routes only.
3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.
4 Road maintenance will be limited to the designated roadway and only that necessary to ensure public safety and serviceability of the road.
5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).
6 Closed to renewable energy facilities and renewable energy development. This includes all commercial renewable energy facilities, including those for testing, monitoring, and development. Facilities utilizing renewable energy technologies in management of the monument or to facilitate or enhance visitor services would be allowed, but subject to review to ensure that monument objectives are met.
7 Livestock grazing will be controlled through terms and conditions on the grazing permit.
8 Evaluate fire potential and remove fuels where needed to protect resource values. Types of treatments permitted include: mechanical treatments, treatment or application of chemicals, and other treatments that would not negatively impact the values of the ACEC.
9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.
10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.
11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialists (archaeologist and wildlife biologist), BLM ORP, and PPNM manager must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Bridger Fossil Area ACEC					
Record#	**Management Activity**	**Alternative A (577 acres)**	**Alternative B (577 acres)**	**Alternative C (577 acres)**	**Alternative D (577 acres)**
Bridger Fossil Area ACEC – Desired Outcomes (Goals and Objectives)					
The Bridger Fossil Area ACEC would be managed to protect paleontological values. In addition, the values for which the Bridger Fossil Area National Natural Landmark was designated would be maintained.					
Bridger Fossil Area ACEC – Management Actions by Alternative					
	Land use authorization, including ROWs	Exclusion area	Exclusion area	Avoidance area (1)	Same as B
	Land tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	Limited to existing roads.	Limited to designated roads and trails (refer to Warren TMA).	Limited to designated roads and trails (refer to Warren TMA).	Limited to designated roads and trails (refer to Warren TMA).
	BLM road maintenance	No current management decision provided	Limited (4)	Same as B	Same as B
	Visual resource management	Class IV	Class III	Class III	Class III
	Plant collecting	No current management decision provided	Not allowed	Allowed (3)	
	Fluid Mineral leasing	Closed (NL)	Closed (NL)	NSO with no Waivers, Exceptions, Modifications	Closed (NL)
	Locatable minerals	No current management decision provided	Closed and recommend withdrawing from mineral entry.		
	Solid leasable minerals	No current management decision provided	Closed		
	Mineral materials sales and permits	Not allowed	Same as A	Allowed (9)	
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration for oil and gas	Allowed if no damage to paleontological resources. If monitoring indicates fossil damage, this activity would not be allowed.	Not allowed	Same as A	Allowed (5) if no damage to paleontological resources. If monitoring indicates fossil damage, this activity would not be allowed.
	Use of explosives for geophysical exploration for oil and gas	Not allowed			
	Fire suppression	No current management decision provided	With the exclusion of heavy equipment, a full range of fire management activities would be used in the ACEC.		
	Fuels management	No current management decision provided	Fuels removed where there would be threat of loss of resource (8)		
	Fuel wood cutting/wood product sales	Not allowed			

2-6.3 Detailed Table of Alternatives: Special Designations

Bridger Fossil Area ACEC					
Record#	**Management Activity**	**Alternative A (577 acres)**	**Alternative B (577 acres)**	**Alternative C (577 acres)**	**Alternative D (577 acres)**
	Livestock grazing	Allowed	Available (7)		
	Range improvements	No current management decision provided	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Noxious/Invasive weed treatments	No current management decision provided	Allowed (5) (10)		
	Animal trapping/traplines	No current management decision provided	Not allowed	Allowed	
	Target shooting	No current management decision provided	Not allowed	Allowed	Allowed – monitor to ensure no conflicts with resource values.
	Non-commercial collection of common invertebrate and plant fossils	Allowed	Allowed (5) by BLM authorization only		
	Cremains scattering	No current management decision provided	Not allowed	Allowed (5)	Allowed (5)
	Special Recreation Permits	Allowed	Not allowed	Allowed (5)	Allowed (5)
	Other permitted activities	Allowed	Not allowed.	Allowed (5)	Allowed (5)
	Transportation	No current management decision provided	No new permanent road or trail development for motorized vehicles.		
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way would be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.

2 Off-highway vehicle, including bicycle, use would be limited to designated routes only.

3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.

4 Road maintenance will be limited to the designated roadway and only that necessary to ensure public safety and serviceability of the road.

5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).

6 Closed to renewable energy facilities and renewable energy development

7 Livestock grazing will be controlled through terms and conditions on the grazing permit.

8 Evaluate fire potential and remove fuels where needed to protect resource values and meet the objectives of the ACEC values. Types of treatments permitted: No surface disturbing heavy equipment use, most types of fire/fuels treatments permitted, check with archaeologist prior to retardant use

9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.

10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.

11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM Resource Specialist (arch) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Castle Butte ACEC					
Record#	**Management Activity**	**Alternative A (184 acres)**	**Alternative B (184 acres)**	**Alternative C (184 acres)**	**Alternative D (184 acres)**
Castle Butte ACEC – Desired Outcomes (Goals and Objectives)					
The Castle Butte ACEC would be managed to protect unique cultural values.					
Castle Butte ACEC – Management Common to All Alternatives					
	Consider acquiring minerals from willing sellers for the ACEC.				
Castle Butte ACEC – Management Actions by Alternative					
	Land use authorizations	Allowed if significant cultural sites avoided	Exclusion area.	Avoidance (1)	Avoidance (1)
	Land tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	Limited to designated roads and trails.	Limited to designated routes (refer to Mill Creek TMA).	Limited to designated routes (refer to Mill Creek TMA).	Limited to designated routes (refer to Mill Creek TMA).
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	Class III			
	Plant collecting	No current management decision provided	Not allowed	Allowed (3)	
	Fluid Mineral leasing	No federal minerals			
	Locatable minerals	No federal minerals			
	Solid leasable minerals	No federal minerals			
	Mineral materials sales and permits	No federal minerals			
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration for oil and gas	Not allowed on the significant cultural sites, surface methods and vibroseis allowed in the remainder of the area	Not allowed	Same as A	Same as B
	Use of explosives for geophysical exploration for oil and gas	No current management decision provided	Not allowed		
	Fire suppression	Conditional fire suppression	No heavy equipment use; no retardant or foam use on Castle Butte; full range of fire management activities would be used in remainder of ACEC.		
	Fuels management	No current management decision provided	Fuels removed where there would be threat of loss of resource (8).		
	Fuel wood cutting/wood product sales	Not allowed			
	Livestock grazing	Allowed	Available (7)		
	Range improvements	Allowed	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Noxious/Invasive weed treatments	No current management decision provided	Allowed (5) (10)		
	Animal trapping/traplines	No current management decision provided	Not allowed	Not allowed within 150 feet of Castle Butte rock formation; allowed in remaining ACEC	Same as B
	Target shooting	No current management decision provided	Not allowed		

2-6.3 Detailed Table of Alternatives: Special Designations

Castle Butte ACEC					
Record#	**Management Activity**	**Alternative A (184 acres)**	**Alternative B (184 acres)**	**Alternative C (184 acres)**	**Alternative D (184 acres)**
	Non-commercial collection of common plant fossils	No current management decision provided	Allowed		
	Cremains scattering	No current management decision provided	Not allowed	Allowed (5)	Same as B
	Special Recreation Permits	Allowed (5)	Not allowed	Allowed (5)	
	Other permitted activities	Allowed on a case-by-case basis	Allowed (5)		
	Transportation	No current management decision provided	No new road or trail development		
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.

2 Off-highway vehicle, including bicycle, use would be limited to designated routes only

3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.

4 Road maintenance will be limited to the designated roadway; and only that necessary to ensure public safety and serviceability of the road.

5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).

6 Closed to renewable energy facilities and renewable energy development

7 Livestock grazing will be controlled through terms and conditions on the grazing permit.

8 Evaluate fire potential and remove fuels where needed to protect resource values and meet the objectives of the ACEC values. Types of treatments permitted: hand cutting or, chainsaw use only on the Castle Butte rock formation, elsewhere in the ACEC other types of treatment would be allowed.

9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.

10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.

11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialist (archaeologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

East Pryor ACEC					
Record#	**Management Activity**	**Alternative A (29,550 acres)**	**Alternative B (8,301 acres)**	**Alternative C (32,767 acres)**	**Alternative D (11,122 acres)**
East Pryor ACEC – Desired Outcomes (Goals and Objectives)					
The East Pryor ACEC would be managed to protect wild horse and wildlife habitat, historical/cultural resources, special status plant species, and paleontological values. In addition, the values for which the Crooked Creek Natural Area and the Crooked Creek National Natural Landmark were designated would be maintained					
East Pryor ACEC – Management Actions by Alternative					
	Land use authorization	Exclusion area	Exclusion area, except valid existing rights.	Avoidance (1)	
	Land tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicle use including snowmobiles	Limited to designated routes (refer to Pryor TMA)	Limited to designed routes (refer to Pryor TMA).	Limited to designated routes (refer to Pryor TMA).	Limited to designated routes (refer to Pryor TMA).
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	Class II			
	Plant collecting	No current management decision provided	Allowed for scientific use or range/forestry studies. No collection of special status species without a permit.	Allowed for personal use as well as scientific use and range/forestry studies. No collection of special status species without a permit.	Allowed (3)
	Fluid Mineral leasing	Closed to oil and gas leasing and development (NL)	Closed to oil and gas leasing and development (NL).	Closed to oil and gas leasing and development (NL).	Closed to oil and gas leasing and development (NL).
	Locatable minerals	Closed and recommended for withdrawal	Close and recommend withdrawal from mineral entry, subject to valid existing rights.	Open	Same as B
	Solid leasable minerals	No current management decision provided	Closed, subject to valid existing rights.	Open (5)	Same as B
	Mineral materials sales and permits	Not allowed	Not allowed	Allowed (9)	
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration for oil and gas	Not allowed			

2-6.3 Detailed Table of Alternatives: Special Designations

East Pryor ACEC					
Record#	**Management Activity**	**Alternative A (29,550 acres)**	**Alternative B (8,301 acres)**	**Alternative C (32,767 acres)**	**Alternative D (11,122 acres)**
	Use of explosives for geophysical exploration for oil and gas	No current management decision provided	Not allowed		
	Fire suppression	Conditional fire suppression	Wildfire management (natural ignitions) for resource benefit. Full range of fire management activities would be used in ACEC in response to human-ignited fires.	Full range of fire management activities would be used in ACEC.	Same as B
	Fuels management	No current management decision provided	Allowed (8)		
	Fuel wood cutting/wood product sales	Not allowed	Not allowed	Casual collection of dead and down allowed for personal use only while recreating.	
	Livestock grazing	Closed within PMWHR boundary, except trailing allowed through Bad Pass only. Available outside PMWHR (7)	Same as A	Closed within PMWHR boundary, except Bad Pass Trail Allotment. Available outside PMWHR (7)	Same as C
	Wild Horses	Managed only within the PMWHR			
	Range improvements	No current management decision provided	Allowed (5)		
	Noxious/Invasive weed treatments	No current management decision provided	Allowed (5) (10)		
	Animal trapping/trap lines	No current management decision provided	Not allowed	Allowed	
	Target shooting	No current management decision provided	Not allowed	Allowed	Not allowed on 8S 28E Memorial Day weekend through Labor Day weekend. Allowed in remainder of ACEC
	Non-commercial collection of common invertebrate and plant fossils	Allowed			
	Cremains scattering	No current management decision provided	Not permitted		
	Special Recreation Permits	No current management decision provided	Allowed (5)		

2-6.3 Detailed Table of Alternatives: Special Designations

East Pryor ACEC					
Record#	**Management Activity**	**Alternative A (29,550 acres)**	**Alternative B (8,301 acres)**	**Alternative C (32,767 acres)**	**Alternative D (11,122 acres)**
	Other permitted activities	No current management decision provided	Allowed (5)		
	Transportation	No current management decision provided	No net increase in road density	Routes for commercial or other BLM authorized activities may be considered on a case-by-case basis if the route meets public access needs.	Same as C
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.

2 Off-highway vehicle, including bicycle, use would be limited to designated routes only.

3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.

4 Road maintenance will be limited to the designated roadway; and only that necessary to ensure public safety and serviceability of the road.

5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).

6 Closed to renewable energy facilities and renewable energy development

7 Livestock grazing will be controlled through terms and conditions on the grazing permit.

8 Evaluate fire potential and remove fuels where needed to protect resource values. Most types of fire and fuels treatments are permitted.

9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.

10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.

11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialists (WH/B specialist, wildlife biologist, and archaeologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Four Dances Natural Area ACEC					
Record#	**Management Activity**	**Alternative A (784 acres)**	**Alternative B (784 acres)**	**Alternative C (784 acres)**	**Alternative D (784 acres)**
Four Dances Natural Area ACEC – Desired Outcomes (Goals and Objectives)					
The Four Dances Natural Area ACEC would be managed to protect significant historic, cultural and scenic values, peregrine falcon nesting habitat, and managed for the natural hazards of the cliffs.					
Four Dances Natural Area ACEC – Management Common to All Alternatives					
	Consider acquiring minerals from willing sellers for the ACEC.				
Four Dances Natural Area ACEC – Management Actions by Alternative					
	Land use authorization	Avoidance area. Uses and practices would be consistent with the Deed of Conservation Easement. A restricted quantity of ROWs, temporary use permits, and land authorizations are available if the actions are consistent with ACEC objectives.	Avoidance (1). Uses and practices would be consistent with the Deed of Conservation Easement.		
	Land Tenure	No land sales, R&PPs, conveyances, or long-term leases for habitation or industrial use.	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	OHV use (including bicycles) limited to administrative or authorized use only. No snowmobiles and no off-road vehicle use.	Same as A	Closed to motorized public use. Mechanized (bicycle) travel would be considered in a future SRMA plan.	Same as C
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	Class III			
	Plant collecting	No current management decision provided	Not allowed	Allowed (3)	
	Fluid Mineral leasing	Closed to oil and gas leasing, exploration and development.			
	Locatable minerals	Closed and withdrawn from mineral entry.	Closed and continue withdrawal from mineral entry.		
	Solid leasable minerals	Closed and withdrawn from mineral entry.	Closed and continue withdrawal from mineral entry.		
	Mineral materials sales and permits	Not allowed			
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration for oil and gas	Not allowed			
	Use of explosives for geophysical exploration for oil and gas	Not allowed			

2-6.3 Detailed Table of Alternatives: Special Designations

Four Dances Natural Area ACEC					
Record#	**Management Activity**	**Alternative A (784 acres)**	**Alternative B (784 acres)**	**Alternative C (784 acres)**	**Alternative D (784 acres)**
	Fire suppression	Appropriate management response to wildfire would be aggressive fire suppression. Appropriate response would include use of natural barriers and hand constructed fire lines. Use of bulldozers and retardant avoided unless approved by the authorized officer.	Fire suppression would include use of natural barriers and hand constructed fire lines. Use of heavy equipment and retardant would be avoided unless approved by the authorized officer. No heavy equipment use near vision quest site, no retardant use within 100 feet of Will James cabin or rock art. Full range of fire management activities would be used in remainder of ACEC.		
	Fuels management	Prescribed fire would be used to reduce hazardous fuels and meet other resource objectives. Allowed only during favorable smoke dispersal conditions with stable atmospheric conditions.	Allowed (5) (8)	Same as B	
	Fuel wood cutting/wood product sales	Wood product sales permits would not be issued. Commercial timber harvest not allowed. Timber management for the safety and enhancement of other values would be practiced in the woody draws, on the islands, and along the Yellowstone River bottom	Not allowed	Wood product sales and commercial timber harvest would not be allowed. Timber management for the safety and enhancement of other values would be allowed in the woody draws, on the islands, and along the Yellowstone River bottom.	
	Livestock grazing	Only authorized to meet other resource objectives consistent with ACEC designation. Grazing must meet Standard and Guidelines. Buffalo grazing not permitted.	Buffalo grazing not permitted. Livestock grazing would be allowed. Only authorized to meet other resource objectives consistent with ACEC designation. Grazing must meet Standard and Guidelines. (7)		
	Range improvements	No current management decision provided.	Not allowed	Allowed if no conflicts with ACEC objectives (5)	
	Noxious/Invasive weed treatments	Treatments may include any combination of herbicide application, burning, grazing, and the use of insects or pathogens. The use of chemicals would be minimized.	Allowed (5) (10)		
	Animal trapping/traplines	No current management decision provided.	Not allowed		
	Hunting/target shooting	No discharging of firearms. Archery hunting may be allowed, if deemed necessary by Montana Fish, Wildlife, and Parks (authorization from BLM required).			
	Cremains scattering	No current management decision provided.	Not allowed		
	Special Recreation Permits	Authorizations would be required or timing and locations would be specified for events, such as cross country races. Some limitations on use by the general public	Not allowed	Same as A (5)	

2-6.3 Detailed Table of Alternatives: Special Designations

Four Dances Natural Area ACEC					
Record#	**Management Activity**	**Alternative A (784 acres)**	**Alternative B (784 acres)**	**Alternative C (784 acres)**	**Alternative D (784 acres)**
		may be required to facilitate Native American religious activities. These would be limited to specific time periods and specific portions of the property.			
	Other permitted activities	No current management decision provided	Not allowed	Allowed (5)	
	Transportation	No current management decision provided	No new roads	No increase in road density	
	Recreation	Day use area only Closed to horseback riding, use of fireworks, hang gliding, rock climbing, paint ball, discharging of fire arms, and exercising pets off leash	Same as A	Day use area only Closed to horseback riding (with the exception of authorized Native American religious ceremonies), hang gliding, rock climbing, paint ball, and discharging of fire arms. Pets must be leashed within parking area.	
	Wildlife	Special management and priority would be given to protecting falcon eyries by restricting human activity along the rims that might adversely affect the nesting birds. Non-ACEC values may be adjusted as necessary.			
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.

2 Off-highway vehicle, including bicycle, use would be limited to designated routes.

3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.

4 Road maintenance will be limited to the designated roadway and only that necessary to ensure public safety and serviceability of the road.

5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).

6 Closed to renewable energy facilities and renewable energy development.

7 Livestock grazing will be controlled through terms and conditions on the grazing permit.

8 Evaluate fire potential and remove fuels where needed to protect resource values and meet the objectives of the ACEC. Types of treatments permitted: prescribed fire throughout ACEC allowed, handcutting/chainsaw use preferred around rock art sites.

9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.

10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.

11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialists (archaeologist and wildlife biologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Grove Creek ACEC					
Record#	**Management Activity**	**Alternative A (No ACEC Designation)**	**Alternative B (8,251 acres)**	**Alternative C (9,445 acres)**	**Alternative D (8,251 acres)**
Grove Creek ACEC – Desired Outcomes (Goals and Objectives)					
The Grove Creek ACEC would be managed to protect significant archaeological and traditional cultural values and special status plants.					
Grove Creek ACEC – Management Actions by Alternative					
	Land use authorization	Allowed	Exclusion area	Avoidance (1)	Avoidance (1)
	Land tenure	Land adjustments (acquisitions, exchanges, disposals) subject to existing land tenure criteria.	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	Limited to existing roads and trails	Limited to designated routes (refer to Grove Creek TMA).		
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	Class III			
	Plant collecting	Allowed	Allowed (3)	Allowed	Same as B
	Fluid Mineral leasing	Open, subject to standard stipulations	Closed to oil and gas leasing, exploration and development (NL). COAs for existing leases	NSO. Conditions of Approval for existing leases	
	Locatable minerals	Open	Closed and recommend withdrawing from mineral entry	Open	
	Solid leasable minerals	Open	Closed and recommend withdrawing from mineral entry	Open (5)	Same as B
	Mineral materials sales and permits	Allowed	Not allowed	Allowed (9)	
	Renewable energy	Open	Closed (6)		
	Geophysical exploration for oil and gas	Allowed	Not allowed	Allowed (5)	
	Use of explosives for geophysical exploration for oil and gas	Allowed	Not allowed		
	Fire suppression	Full suppression	Wildfire management (natural ignitions) for resource benefit. Full range of fire management activities would be used in ACEC in response to human-ignited fires. No heavy equipment use within ACEC.	No heavy equipment use within ACEC; full range of fire management activities would be used in remainder of ACEC.	Same as B
	Fuels management	Allowed	Allowed (8)		
	Fuel wood cutting	Allowed	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Wood product sales	Allowed	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Livestock grazing	Available	Available (7)		
	Range improvements	Allowed	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Noxious/Invasive weed treatments	Allowed	Allowed (5) (10)		

2-6.3 Detailed Table of Alternatives: Special Designations

Grove Creek ACEC					
Record#	**Management Activity**	**Alternative A (No ACEC Designation)**	**Alternative B (8,251 acres)**	**Alternative C (9,445 acres)**	**Alternative D (8,251 acres)**
	Animal trapping/traplines	Allowed	Not allowed	Same as A	
	Target shooting	Allowed	Not allowed	Same as A	
	Cremains scattering	Allowed	Not allowed	Allowed (5)	Same as B
	Special Recreation Permits	Allowed	Not allowed	Allowed (5)	
	Other permitted activities	Allowed	Not allowed	Allowed (5)	
	Transportation	Open	No increase in road density	New routes for commercial or other BLM authorized activities may be considered if the route meets public access needs.	Same as B
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.
2 Off-highway vehicle, including bicycle, use would be limited to designated routes only
3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.
4 Road maintenance will be limited to the designated roadway; shoulder barrow/ditch construction will be limited to only that necessary to ensure public safety and serviceability of the road.
5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).
6 Closed to renewable energy facilities and renewable energy development
7 Livestock grazing will be controlled through terms and conditions on the grazing permit.
8 Evaluate fire potential and remove fuels where needed to protect resource values and meet the objectives of the ACEC. Types of treatments permitted: hand cutting, chainsaw, mechanical, prescribed fire.
9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.
10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.
11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialists (archaeologist and botanist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Meeteetse Spires ACEC					
Record#	**Management Activity**	**Alternative A (965 acres)**	**Alternative B (1,523 acres)**	**Alternative C (2,173 acres)**	**Alternative D (1,523 acres)**
Meeteetse Spires ACEC – Desired Outcomes (Goals and Objectives)					
	The Meeteetse Spires ACEC would be managed to protect and enhance unique vegetation (rare plants) and conserve scenic values.				
Meeteetse Spires ACEC – Management Common to All Alternatives					
	Consider acquiring minerals from willing sellers for the ACEC.				
Meeteetse Spires ACEC – Management Actions by Alternative					
	Land use authorization	Exclusion area			
	Land tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicles	Limited to existing roads and trails	Designated routes (refer to Grove Creek TMA)		
	BLM road maintenance	No current management decision provided	Not allowed	Limited (4)	Same as B
	Visual resource management	Class II			
	Plant collecting	No current management decision provided	Allowed for scientific use or range/forestry studies. No collection of special status species without a permit.		
	Fluid Mineral leasing	Closed (NL)	Closed (NL) (original ACEC – 965 acres) Manage remainder of ACEC for no surface occupancy (no federal minerals)		
	Locatable minerals	Closed and recommended for withdrawal	Closed and recommended for withdrawal (original ACEC – 965 acres). Remainder of ACEC would be Open		
	Solid leasable minerals	Open	Open (5)		
	Mineral materials sales and permits	Not allowed	Not allowed	Allowed (9)	
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration	Not allowed in the special status plant areas, on the remaining area, exploration access by air only. Shot holes and above ground shots only. No vibroseis.	Not allowed	Same as A	Same as B
	Use of explosives for geophysical exploration for oil and gas	Not allowed			
	Fire suppression	Conditional suppression	Wildfire management (natural ignitions) for resource benefit. Full range of fire management activities would be used in ACEC in response to human-ignited fires. No heavy equipment use within ACEC.	Full range of fire management activities would be used in remainder of ACEC	Same as B
	Fuels management	No current management decision provided	Allowed (8)		
	Fuel wood cutting	Not allowed	Not allowed		

2-6.3 Detailed Table of Alternatives: Special Designations

Meeteetse Spires ACEC					
Record#	**Management Activity**	**Alternative A (965 acres)**	**Alternative B (1,523 acres)**	**Alternative C (2,173 acres)**	**Alternative D (1,523 acres)**
	Wood product sales	Select timber harvest allowed periodically to protect resource values. Wood product sales not allowed.	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Livestock grazing	Livestock grazing permitted, except for sheep	Closed	Livestock grazing permitted, except for sheep on 965 acres (original ACEC -). The 558 acre acquisition is not suitable for livestock grazing.	
	Range improvements	Allowed	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Noxious/Invasive weed treatments	Allowed	Allowed (5) (10)		
	Animal trapping/traplines	No current management decision provided	Allowed		
	Target shooting	No current management decision provided	Allowed		
	Cremains scattering	No current management decision provided	Not permitted		
	Special Recreation Permits	Allowed	Not allowed	Allowed (5)	
	Other permitted activities	Allowed	Not allowed	Allowed (5)	
	Transportation	No current management decision provided	No net increase in road density		
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting rights-of-way (surface, subsurface, aerial) within the area should be avoided, but rights-of-ways may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.
2 Off-highway vehicle, including bicycle, use would be limited to designated routes only.
3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.
4 Road maintenance will be limited to the designated roadway; and only that necessary to ensure public safety and serviceability of the road.
5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).
6 Closed to renewable energy facilities and renewable energy development
7 Livestock grazing will be controlled through terms and conditions on the grazing permit.
8 Evaluate fire potential and remove fuels where needed to protect resource values and must meet objectives of ACEC. Types of treatments permitted: hand cutting, chainsaw, mechanical, prescribed and non-surface disturbing treatments.
9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.
10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.
11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialist (botanist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Petroglyph Canyon ACEC					
Record#	**Management Activity**	**Alternative A (240 acres)**	**Alternative B (240 acres)**	**Alternative C (240 acres)**	**Alternative D (240 acres)**
Desired Future Conditions (Goals and Objectives)					
The Petroglyph Canyon ACEC would be managed to protect unique cultural values.					
Management Actions by Alternative					
	Land use authorization	Exclusion Area			
	Land tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	Closed to vehicle use	Designated routes only (refer to Pryor TMA)	Designated routes only (refer to Pryor TMA)	Designated routes only (refer to Pryor TMA)
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	Class IV	Class II	Class III	Same as B
	Plant collecting	Allowed	Not allowed	Allowed (3)	
	Fluid Mineral leasing	Closed (NL)		NSO (no WEMs)	Closed (NL)
	Locatable minerals	Closed and withdrawn from mineral entry	Closed and continue to withdraw from mineral entry		
	Solid leasable minerals	No current management decision provided	Closed	Open with NSO (5)	Same as B
	Mineral materials sales and permits	No current management decision provided	Not allowed	Allowed (9)	Same as B
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration for oil and gas	Not allowed			
	Use of explosives for geophysical exploration for oil and gas	No current management decision provided	Not allowed		
	Fire suppression	No current management decision provided	No heavy equipment use, no retardant or foam use;		
	Fuels management	No current management decision provided	Allowed (8)		
	Fuel wood cutting/wood product sales	Not allowed			
	Livestock grazing	Allowed	Available (7)		
	Range improvements	Allowed	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Noxious/Invasive weed treatments	No current management decision provided	Allowed (5) (10)		

2-6.3 Detailed Table of Alternatives: Special Designations

Petroglyph Canyon ACEC					
Record#	**Management Activity**	**Alternative A (240 acres)**	**Alternative B (240 acres)**	**Alternative C (240 acres)**	**Alternative D (240 acres)**
	Animal trapping/traplines	No current management decision provided	Not allowed	Allowed	Same as B
	Target shooting	No current management decision provided	Not allowed		
	Cremains scattering	No current management decision provided	Not allowed		
	Special Recreation Permits	No current management decision provided	Not allowed	Allowed (5)	
	Other permitted activities	No current management decision provided	Not allowed	Allowed (5)	
	Transportation	No current management decision provided	No net increase in road density		
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.

2 Off-highway vehicle, including bicycle, use would be limited to designated routes only.

3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.

4 Road maintenance will be limited to the designated roadway; and only that necessary to ensure public safety and serviceability of the road.

5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).

6 Closed to renewable energy facilities and renewable energy development

7 Livestock grazing will be controlled through terms and conditions on the grazing permit.

8 Evaluate fire potential and remove fuels where needed to protect resource values and meet the objectives of the ACEC. Types of treatments permitted: hand cutting and chainsaw use only.

9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.

10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.

11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialist (archaeologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Pryor Foothills Research Natural Area (RNA) ACEC					
Record#	**Management Activity**	**Alternative A (No ACEC)**	**Alternative B (958 acres)**	**Alternative C (7,401 acres)**	**Alternative D (2,606 acres)**
Pryor Foothills RNA ACEC – Desired Outcomes (Goals and Objectives)					
The Pryor Foothills RNA ACEC would be managed to protect unique vegetation (a large concentration of Bureau special status plant species and rare plant communities) and to protect significant historic and cultural values in the Gyp Springs area.					
Pryor Foothills RNA ACEC – Management Actions by Alternative					
	Land use authorization	Allowed	Exclusion Area	Avoidance (1), subject to valid existing rights.	
	Land tenure	Land adjustments subject to existing land tenure criteria.	Category I retention land: no land disposal would occur		
	Off-highway vehicles	Limited to designated routes (refer to Pryors TMA)	Limited to designated routes (refer to Pryors TMA)	Limited to designated routes (refer to Pryors TMA)	Limited to designated routes (refer to Pryors TMA)
	BLM road maintenance	Allowed	Limited (4)		
	Visual resource management	Class III			
	Plant collecting	Allowed	Not allowed	Allowed for scientific use or range/forestry studies. No collection of special status species without a permit.	Same as C
	Fluid Mineral leasing	Open	Closed (NL)	No surface occupancy (NSO) on known plant sites. Inventory prior to surface disturbing activities (CSU).	NSO ¼ mile buffer on known plant sites (acres). Inventory prior to surface disturbing activities (CSU).
	Locatable minerals	Open	Closed and recommend withdrawing from mineral entry, subject to valid existing rights	Open - Inventory prior to surface disturbing activities (CSU).	Same as B
	Solid leasable minerals	Open	Closed, subject to valid existing rights	Open (5)- Inventory prior to surface disturbing activity CSU	Same as B
	Mineral materials sales and permits	Allowed	Not allowed	Allowed (9)	Same as B
	Renewable energy	No current management decision provided	Closed (6)	Open (5)	Same as B
	Geophysical exploration	Allowed	Not allowed	Allowed (5)	Same as B
	Fire suppression	Allowed	Wildfire management (natural ignitions) for resource benefit. Full range of fire management activities would be used in ACEC in response to human-ignited fires. No heavy equipment use within ACEC.	Full range of fire management activities would be used in ACEC.	Same as B
	Fuels management	Allowed	Allowed (8)		
	Fuel wood cutting/wood product sales	No current management decision provided	Not allowed	Allowed (5) periodically to protect resource values.	

2-6.3 Detailed Table of Alternatives: Special Designations

Pryor Foothills Research Natural Area (RNA) ACEC					
Record#	**Management Activity**	**Alternative A (No ACEC)**	**Alternative B (958 acres)**	**Alternative C (7,401 acres)**	**Alternative D (2,606 acres)**
	Livestock grazing	Permitted	Available (7)		
	Range improvements	Allowed	No improvements would be allowed that would result in a net increase of livestock use in the ACEC (5)	Same as A	Same as B
	Noxious/Invasive weed treatments	Allowed	Allowed (5) (10) to protect rare plant values		
	Animal trapping/traplines	Allowed			
	Target shooting	Allowed	Not allowed	Allowed	
	Cremains scattering	No current management decision provided	Not permitted		
	Special Recreation Permits	Allowed	Not allowed	Allowed (5)	
	Other permitted activities	Allowed	Not allowed	Allowed (5)	
	Transportation	No current management decision provided	No new road or trail development.	No increase in road density.	
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.
2 Off-highway vehicle, including bicycle, use would be limited to designated roads and trails only
3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.
4 Road maintenance will be limited to the designated roadway; and only that necessary to ensure public safety and serviceability of the road.
5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).
6 Closed to renewable energy facilities and renewable energy development
7 Livestock grazing will be controlled through terms and conditions on the grazing permit.
8 Evaluate fire potential and remove fuels where needed to protect resource values and meet objectives of the ACEC. Types of treatments permitted include: prescribed fire, hand-cutting, chainsaws, mechanical and non-surface disturbing treatments.
9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.
10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.
11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialists (botanist and archaeologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Stark Site ACEC					
Record#	**Management Activity**	**Alternative A (799 acres)**	**Alternative B (799 acres)**	**Alternative C (799 acres)**	**Alternative D (799 acres)**
Stark Site ACEC – Desired Outcomes (Goals and Objectives)					
The Stark Site ACEC would be managed to protect unique cultural values.					
Stark Site ACEC – Management Actions by Alternative					
	Land use authorization	Exclusion area	Exclusion area	Avoidance (1)	Avoidance (1)
	Land tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	Limited to existing roads and trails	Motorized travel limited to designated routes (refer to Horsethief TMA)	Motorized travel limited to designated routes (refer to Horsethief TMA)	Motorized travel limited to designated routes (refer to Horsethief TMA)
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	Class III	Class III		
	Plant collecting	Allowed	Allowed (3)		
	Fluid Mineral leasing	NSO			
	Locatable minerals	Open	Closed and recommend withdrawing from mineral entry	Open	Same as B
	Solid leasable minerals	No current management decision provided	Closed	Open (5) with NSO	
	Mineral materials sales and permits	Not allowed	Not allowed	Allowed (9)	Same as B
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration for oil and gas	Not allowed on the significant cultural resource sites, but allowed in other areas of ACEC (surface and vibroseis only)	Not allowed	Same as A	Same as B
	Use of explosives for geophysical exploration for oil and gas	No current management decision provided	Not allowed		
	Fire suppression	Conditional fire suppression	No heavy equipment use, no retardant or foam use.		
	Fuels management	No current management decision provided	Allowed (8)		
	Fuel wood cutting/wood product sales	Not allowed			
	Livestock grazing	Allowed	Available (7)		
	Range improvements	Allowed	Not allowed	Allowed if no conflicts with ACEC values (5)	

2-6.3 Detailed Table of Alternatives: Special Designations

Stark Site ACEC					
Record#	**Management Activity**	**Alternative A (799 acres)**	**Alternative B (799 acres)**	**Alternative C (799 acres)**	**Alternative D (799 acres)**
	Noxious/Invasive weed treatments	No current management decision provided	Allowed (5) (10)		
	Animal trapping/traplines	No current management decision provided	Not allowed	Allowed	
	Target shooting	No current management decision provided	Not allowed	Allowed	Same as B
	Cremains scattering	No current management decision provided	Not allowed		
	Special Recreation Permits	Allowed(5)	Not allowed	Allowed (5)	
	Other permitted activities	Allowed, case-by-case basis	Not allowed	Allowed (5)	
	Transportation	Limited to existing roads and trails	No new road or trail development.	No increase in road density.	
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.

2 Off-highway vehicle, including bicycle, use would be limited to designated routes only

3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.

4 Road maintenance will be limited to the designated roadway; and only that necessary to ensure public safety and serviceability of the road.

5 The activity is allowed in the area on a case-by-case basis and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).

6 Closed to renewable energy facilities and renewable energy development

7 Livestock grazing will be controlled through terms and conditions on the grazing permit.

8 Evaluate fire potential and remove fuels where needed to protect resource values and meet the ACEC values. Types of treatments permitted: hand cutting & chainsaw use. Other types of treatment (mechanical or prescribed) would be allowed if treatment meets objectives of ACEC.

9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.

10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.

11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialist (archaeologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Weatherman Draw ACEC					
Record#	**Management Activity**	**Alternative A (4,365 acres)**	**Alternative B (4,986 acres)**	**Alternative C (12,277 acres)**	**Alternative D (12,277 acres)**
Desired Outcomes (Goals and Objectives)					
The Weatherman Draw ACEC would be managed to protect unique cultural values.					
Management Actions by Alternative					
	Land use authorization	Exclusion area, ROWs associated with valid existing oil or gas lease rights allowed with restrictions.	Exclusion area, subject to valid existing rights.	ROW exclusion area, subject to valid existing rights (1) (4,986 acres) Remainder of ACEC: Avoidance area (1) (7,291 acres)	Same as C
	Land Tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	Limited to authorized use only	Limited to designated routes (refer to Weatherman Draw TMA)	Limited to designated routes (refer to Weatherman Draw TMA)	Limited to designated routes (refer to Weatherman Draw TMA)
	BLM road maintenance	No current management decision provided	Limited (4)		
	Visual resource management	Class II	Class II	Class II: 4,986 acres Class III: 7,291 acres	Same as C
	Plant collecting	Open	Not allowed	Allowed (3)	
	Fluid Mineral leasing	NSO (with no waiver, exception, or modification provisions)	Closed (NL)	NSO (5)	Closed (NL) (4,986 acres). NSO (5) (7,291 acres)
	Locatable minerals	600 acres closed and withdrawn from mineral entry	600 acres closed and continue to recommend withdrawal from mineral entry Closed and recommend for withdrawal from mineral entry (4,386 acres)	600 acres closed and continue to recommend withdrawal from mineral entry Open (5) (11,677 acres)	600 acres closed and continue to recommend withdrawal from mineral entry Close and recommend for withdrawal from mineral entry (4,386 acres) Open (5) (7,291 acres)
	Solid leasable minerals	No current management decision provided	Closed	Open (5) with NSO	Closed from mineral entry (4,986 acres) Open (5) with NSO (7,291 acres)
	Mineral materials sales and permits	Not allowed	Not allowed	Not allowed (4,986 acres) Allowed (7,291 acres) (9)	Same as C
	Renewable energy	No current management decision provided	Closed (6)		
	Geophysical exploration for oil and gas	Not allowed			
	Fire suppression	Conditional fire suppression	Wildfire management (natural ignitions) for resource benefit. Full range of fire management activities would be used in ACEC in response to human-ignited fires.	Full range of fire management activities would be used in ACEC	Same as B

2-6.3 Detailed Table of Alternatives: Special Designations

Weatherman Draw ACEC					
Record#	**Management Activity**	**Alternative A (4,365 acres)**	**Alternative B (4,986 acres)**	**Alternative C (12,277 acres)**	**Alternative D (12,277 acres)**
			No heavy equipment, no retardant or foam use		
	Fuels management	No current management decision provided	Fuels removed where there would be threat or loss of resource (8)		
	Fuel wood cutting/wood product sales	Not allowed		Not allowed: (4,986 acres) Allowed by permit only (7,291 acres)	
	Livestock grazing	Allowed	Available (7)	Same as B	
	Range improvements	Allowed if no conflicts with ACEC values	Not allowed	Allowed if no conflicts with ACEC values (5)	
	Noxious/Invasive weed treatments	No current management decision provided	Allowed (5) (10)		
	Animal trapping/traplines	No current management decision provided	Not allowed	Allowed	Not allowed (4,986 acres) Allowed: (7,291 acres)
	Target shooting	No current management decision provided	Not allowed		
	Cremains scattering	No current management decision provided	Not permitted		
	Special Recreation Permits	Open	Not allowed	Allowed (5)	
	Other permitted activities	Allowed	Not allowed	Allowed (5)	
	Transportation	No current management decision provided	No net increase in road density		
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).		

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.
2 Off-highway vehicles, including bicycles, use would be limited to designated routes only.
3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.
4 Road maintenance will be limited to the designated roadway and only that necessary to ensure public safety and serviceability of the road.
5 The activity is allowed in the area subject to specific environmental analysis upon individual permit applications and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).
6 Closed to renewable energy facilities and renewable energy development
7 Livestock grazing will be controlled through terms and conditions on the grazing permit.
8 Evaluate fire potential and remove fuels where needed to protect resource values. Types of treatments permitted: hand cutting/chainsaw only around rock art sites. Mechanical thinning would be allowed on a case-by-case basis - must meet objectives of ACEC.
9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.
10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.
11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialist (archaeologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Greater Sage-Grouse ACEC					
Record#	**Management Activity**	**Alternative A (0 acres)**	**Alternative B (154,140 acres)**	**Alternative C (0 acres)**	**Alternative D (0 acres)**
Desired Outcomes (Goals and Objectives)					
The Greater Sage-Grouse ACEC would be managed to protect Greater Sage-Grouse priority habitat.					
Management Actions by Alternative					
	Land use authorization	Allowed	Exclusion area, subject to valid existing rights.	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Land Tenure	Land adjustments (acquisitions, exchanges, disposals) subject to existing land tenure criteria	Category I retention land: no land disposal would occur		
	Off-highway vehicle use	Limited to existing roads and trails	The BLM may close or restore unauthorized, user created roads and trails to prevent resource damage. TMAs in or partially in the ACEC would be managed to minimize impacts to sage-grouse habitat or managed to protect sage-grouse habitat		
	BLM road maintenance	Allowed	Allowed if no resource conflict	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Visual resource management	Class II and Class III			
	Plant collecting	Open	Allowed (3)	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Fluid Mineral leasing	NSO (with no waiver, exception, or modification provisions)	Closed (NL)	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Locatable minerals	Open	Closed and recommended for withdrawal	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Solid leasable minerals	Allowed	Allowed with lease stips	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Mineral materials sales and permits	Allowed	Closed	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Renewable energy	Allowed	Exclusion area (6)	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Geophysical exploration for oil and gas	Open to oil and gas leasing and geophysical operations, subject to the following lease stipulations: Surface occupancy and use would be prohibited within 0.25 miles of sage-grouse leks (NSO).	Closed to future oil and gas leasing, exploration, and/or development and prohibit other surface disturbing and disruptive activities. Surface occupancy and use would be prohibited. Leases would not be renewed upon expiration.	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Fire suppression	Conditional fire suppression	Heavy equipment would not be used	Management for Greater Sage-Grouse Protection Priority Areas (PPAs)	

2-6.3 Detailed Table of Alternatives: Special Designations

Greater Sage-Grouse ACEC					
Record#	**Management Activity**	**Alternative A (0 acres)**	**Alternative B (154,140 acres)**	**Alternative C (0 acres)**	**Alternative D (0 acres)**
			within 4 miles of lek sites (sage-grouse nesting habitat).	provided throughout alternative/document.	
	Fuels management	Allowed	Prescribed fire would not be allowed in ACEC.	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Fuel wood cutting/wood product sales	Allowed			
	Livestock grazing	Allowed	Available (7) Designate those allotments within or containing portions of the Greater Sage-Grouse ACEC as management Category I (managed to improve sage-grouse habitat and changes in grazing would be proposed should sage-grouse habitat be impacted by grazing). Allotments within or containing portions of the Greater Sage-Grouse ACEC would be priority Allotments for monitoring and evaluation.	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Range improvements	Allowed	Installation of structural range improvements would only be considered where grazing practices are unable to resolve the resource concern. Structural range improvements could be considered where necessary to facilitate the change in grazing management practices.	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Noxious/Invasive weed treatments	Allowed	Allowed (5) (10)	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Animal trapping/traplines	Allowed			
	Target shooting	Allowed			
	Cremains scattering	Allowed			
	Special Recreation Permits	Allowed	SRPs would only be allowed in priority habitat if they are consistent with the	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	

2-6.3 Detailed Table of Alternatives: Special Designations

Greater Sage-Grouse ACEC					
Record#	**Management Activity**	**Alternative A (0 acres)**	**Alternative B (154,140 acres)**	**Alternative C (0 acres)**	**Alternative D (0 acres)**
			goals and objectives for that habitat or species.		
	Other permitted activities	Allowed	Not allowed	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Transportation	No current management decision provided	The BLM may close or restore unauthorized, user created roads and trails to prevent resource damage. TMAs in or partially in the ACEC would be managed to minimize impacts to sage-grouse habitat	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	
	Geocaching	Allowed	Not allowed (11)		
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the ACEC is designated (5).	Management for Greater Sage-Grouse Protection Priority Areas (PPAs) provided throughout alternative/document.	

Notes: (Map 159)

1 Avoidance area; granting Rights-of-Way (surface, subsurface, aerial) within the area should be avoided, but rights-of-way may be granted if there is minimal or no conflict with identified resource values and impacts to ACEC resource values can be fully mitigated.
2 Off-highway vehicles, including bicycles, use would be limited to designated routes only.
3 Commercial collection of plant materials, including common species, authorized by permit only. Casual use allowed.
4 Road maintenance will be limited to the designated roadway and only that necessary to ensure public safety and serviceability of the road.
5 The activity is allowed in the area subject to specific environmental analysis upon individual permit applications and only if there is minimal or no conflict with identified resources values and impacts to ACEC resource values can be fully mitigated. Additional NEPA analysis required. Cultural inventories will be required for surface disturbing activities. Native American coordination/consultation required on activities within ACEC (especially if cultural resources are one of the values for ACEC designation).
6 Closed to renewable energy facilities and renewable energy development
7 Livestock grazing will be controlled through terms and conditions on the grazing permit.
8 Evaluate fire potential and remove fuels where needed to protect resource values. Types of treatments permitted: hand cutting/chainsaw only around rock art sites. Mechanical thinning would be allowed on a case-by-case basis - must meet objectives of ACEC.
9 Open to mineral material activities on a case-by-case basis and subject to controlled surface use, seasonal timing restrictions, restricted or no uses in avoidance areas (e.g. riparian areas, areas with special wildlife or plant features, areas of high cultural significance, and sensitive viewsheds), and additional NEPA analysis required.
10 Treatments may include any combination of herbicide application, mechanical treatments, burning, grazing, and the use of insects or pathogens.
11 If geocache location/activity does not conflict with the resource values of the ACEC, this activity could be considered. BLM resource specialist (wildlife biologist) and BLM ORP must agree activity does not impact ACEC values.

2-6.3 Detailed Table of Alternatives: Special Designations

Wilderness Study Areas (WSAs)				
Record#	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
A wilderness study area (WSA) contains undeveloped United States federal land retaining its primeval character and influence, without permanent improvements or human habitation, and managed to preserve its natural conditions. WSAs are not included in the National Wilderness Preservation System until the United States Congress passes wilderness legislation. On BLM lands, a WSA is a road-less area that has been inventoried (but not designated by Congress) and found to have wilderness characteristics as described in Section 603 of the Federal Land Management Policy Act of 1976 and Section 2(c) of the Wilderness Act of 1964. The Billings Field Office currently manages the Twin Coulee WSA in Musselshell County (Map 160) and the Burnt Timber Canyon, Big Horn Tack-On, and Pryor Mountain WSAs in Carbon County, Montana and Big Horn County, Wyoming (Map 161). Wilderness study areas within the planning area total approximately 28,631 acres. The Billings Field Office would manage wilderness study areas according to BLM Manual 6330 – Management of BLM Wilderness Study Areas, until such time as Congress makes a determination regarding wilderness designations.				
Desired Outcomes (Goals and Objectives)				
Manage Wilderness Study Areas (WSAs) following BLM Manual 6330 – Management of BLM Wilderness Study Areas - until such time as Congress acts upon the recommendations. The BLM is statutorily (FLPMA Section 603(c)) required to manage these areas to protect their suitability for Congressional designation into the National Wilderness Preservation System unless and until Congress either designates an area as wilderness or releases it from further consideration.				
Management Common to All Alternatives				
	Wilderness Study Areas would be managed according to BLM Manual 6330 – Management of BLM Wilderness Study Areas. he BLM is statutorily (FLPMA Section 603) required to manage these areas to protect their suitability for congressional designation to the National Wilderness Preservation System unless and until Congress either designates an area as wilderness or releases it from further consideration.			
	Conduct resource and activity monitoring to identify developments and disturbances and to timely address impacts to wilderness characteristics.			
	Competitive or commercial SRPS would not be allowed within WSAs, with the exception of outfitter and guide uses and existing permittees.			
	Manage WSAs to protect, conserve, and enhance wilderness characteristics			
	Surface disturbing and disruptive activities would only be allowed if the activity does not impair the resource values and/or wilderness characteristics, except those actions specifically exempted from this standard by FLPMA (such as grandfathered uses). BLM will rehabilitate existing impacts during ESR/rehab operations of any human impacts which are destabilized by during a fire event.			
	Vegetation and fuels treatments, including prescribed fire, would be allowed, only if they enhance wilderness values.			
	Allow for habitat manipulations in WSAs on a case-by-case basis using methods which protect areas from weed infestations resulting from human influence and which specifically conform to guidance in BLM Manual 6330 .			
	WSA lands would be closed to permitted commercial and personal use wood cutting, seed and plant collection.			
	WSAs would be managed as VRM Class I.			
	WSAs would be managed as closed to all types of mechanical transport, including snowmobiles. Aircraft may not land in a WSA, nor may air deliveries be made, with the exception of law enforcement activities, emergencies, aerial surveys, the installation of temporary or removal of obsolete facilities, and the gathering of wild horses. New routes (those not found in the initial Wilderness inventory) may not be established or designated for mechanical use.			
	WSAs would be closed to oil and gas leasing and development, subject to valid existing rights.			
	Mineral material sales would not be allowed in WSAs			
	WSAs would be managed as a ROW exclusion area. Existing ROWs may be renewed if still being used for their authorized purpose.			
	Conduct active restoration activities to remove unnatural features and rehabilitate unauthorized facilities, consistent with regulations. Closed vehicle routes will be rehabilitated or			

2-6.3 Detailed Table of Alternatives: Special Designations

Wilderness Study Areas (WSAs)				
Record#	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
	converted into non-mechanized trails.			
	As a high priority, BLM will acquire lands within WSAs boundaries from willing sellers. BLM will rehabilitate existing impacts on any acquired lands			
	Public access to WSAs would be provided through public access easements across public lands where feasible and needed.			
	Fire activities and projects in WSAs will adhere to the direction of BLM Manual 6330. Minimum Impact Suppression Tactics (MIST) would be used for all suppression efforts. A Resource Advisor would be assigned to all fires which occur within a WSAs			
	Release of WSAs - Management Actions by Alternative			
	BLM Manages lands released from wilderness study area designation by Congress in the same manner as surrounding lands. In the event that lands released from wilderness study area designation are protected under some other special designation, those lands would retain those same protections identified in the Common to All (e.g., ACECs within a wilderness study area). WSA lands not retained under some other special designation would be released for other purposes and uses. These other special designations are not a substitute for wilderness designation but provide specific management prescriptions to protect important resources.			
	If Congress acts on designation, and Big Horn Tack-On, Burnt Timber Canyon and Pryor Mountain WSAs are not selected as wilderness, the area within the current boundaries of all WSAs would continue to be closed to motorized use including snowmobile use.			
	Portions of Big Horn Tack-On, Burnt Timber Canyon, and Pryor Mountain WSAs current WSA boundaries would be managed as an ACEC.	If Congress acts on designation, and Big Horn Tack-On, Burnt Timber Canyon, and Pryor Mountain WSAs are not selected as wilderness, the land area within these current WSA boundaries would be managed as an ACEC.	Same as B	Same as B
	By policy Lands within the WSAs are managed as VRM Class I	If Congress acts on designation and the lands within Big Horn Tack-On, Burnt Timber Canyon, Pryor Mountain, and Twin Coulee WSAs are released from further consideration; the land area within the current boundaries would be managed as VRM Class II.	Same as B	Same as B
	No similar action	If Congress acts on designation, and Twin Coulee, Big Horn Tack-On, Burnt Timber Canyon and Pryor Mountain WSAs are not selected as wilderness, the land area within these current WSA boundaries would continue to be closed and recommended for withdrawal from mineral entry.	If Congress acts on the designation and Twin Coulee WSA is released from further consideration, the area would be open for mineral entry and leasing. If Congress acts on designation, and Big Horn Tack-On, Burnt Timber Canyon and Pryor Mountain WSAs are not selected as wilderness, the land area within these current WSA boundaries would continue to be closed and recommended for withdrawal from mineral entry.	Same as C
	No current Wildland fire management decision provided	Wildfire management (natural ignitions) for resource benefit. Appropriate fire management in response to human-ignited fires.	Appropriate fire management protection strategies.	Same as B

2-6.3 Detailed Table of Alternatives: Special Designations

Wild and Scenic Rivers				
Record#	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
Agencies conduct eligibility and suitability recommendations for potential river segments through the planning process and submit their findings to Congress for action. Upon appropriate study and evaluation, rivers are classified as wild, scenic, or recreational, depending on the level of human impact. See Appendix R for the eligibility report for river segments in the Billings Field Office.				
Wild and Scenic Rivers – Desired Outcomes (Goals and Objectives)				
The Billings Field Office management strategy is to manage eligible river to protect and enhance the free-flowing character, water quality, and outstandingly remarkable values until suitability can be determined through the land use planning process, determine the suitability or non-suitability of eligible rivers for potential inclusion within the NWSR through the land use planning process, manage suitable rivers to protect and enhance the free-flowing character, water quality, and identified outstandingly remarkable values until congress designates the river as a component of the NWSRS or releases the river for other uses.				
Wild and Scenic Rivers – Management Common to All Alternatives				
	Management would be conducted in a manner to protect and enhance the outstandingly remarkable values, the free flowing nature, and the water quality for each river segment.			
Wild and Scenic Rivers – Management Actions by Alternative				
	Manage all of the eligible river segments (14.08 miles) (Map 162) to protect their outstandingly remarkable values, free-flowing nature, and tentative classification, as follows: • Bad Canyon • Bear Canyon • Crooked Creek (upper) • Crooked Creek (lower) • Gyp Springs • Piney Creek • Yellowstone River/Pompeys Pillar	Recommend all of the eligible river segments (14.08 miles) (map 163) as suitable for inclusion in the National Wild and Scenic River System to protect their outstandingly remarkable values, free-flowing nature, and tentative classification, as follows: • Bad Canyon • Bear Canyon • Crooked Creek (upper) • Crooked Creek (lower) • Gyp Springs • Piney Creek • Yellowstone River/Pompeys Pillar	Manage all of the eligible river segments (14.08 miles) (Map 164) to protect their outstandingly remarkable values, free-flowing nature, and tentative classification, as follows: • Bad Canyon • Bear Canyon • Crooked Creek (upper) • Crooked Creek (lower) • Gyp Springs • Piney Creek • Yellowstone River/Pompeys Pillar None of the eligible river segments would be recommended as suitable for inclusion in the National Wild and Scenic River system.	Manage the following river segments (3.15 miles) (Map 165) as suitable to protect their outstandingly remarkable values, free-flowing nature, and classification. The following segments would be recommended as suitable for inclusion in the National Wild and Scenic River System: • Crooked Creek (above fish barrier – 1.59 miles); tentative management class would be Wild. • Crooked Creek (below fish barrier – 1.56 miles); tentative management class would be Scenic.
	No current management decision provided	WSR-suitable segments would be closed to oil and gas leasing, exploration and development (NL).	NSO for oil and gas leasing, exploration and development within ¼ mile of WSR- eligible (NSO).	NSO for oil and gas leasing, exploration and development within ½ mile of WSR-eligible and suitable segments (NSO).
	No current management decision provided.	WSR-suitable and eligible segments would be exclusion areas for wind energy.		

2-6.3 Detailed Table of Alternatives: Special Designations

Pryor Mountain Wild Horse Range					
Record#	**Management Activity**	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
The Pryor Mountain Wild Horse Range (PMWHR) is an administrative designation dictating a Herd Management Area (HMA) is to be managed principally, but not necessarily exclusively, for the benefit of wild horses within the authorities of the Wild Free-Roaming Horse and Burro Act of 1971, as amended.					
Pryor Mountain Wild Horse Range – Desired Outcomes (Goals and Objectives)					
• Management activities for other resources and programs within the PMWHR would be designed in a manner to minimize impacts to wild horses and their habitat. During the summer and fall seasons the PMWHR attracts many members of the public who enjoy viewing the wild horses and other recreational opportunities (e.g. camping, hiking, ATV riding, hunting, naturalizing, etc.). • Management of the administrative designation area would be to enhance wild horse protection and habitat from congested recreational use, providing for public health, and safety of public land users.					
Pryor Mountain Wild Horse Range – Management Actions by Alternative					
	Wild horse protection: public feeding	Allowed but discouraged	Not allowed	Allowed as long as no moving or chasing of horses	Only allowed for management purposes
	Wild horse protection: Harassment	Not allowed, but harassment of wild horses not locally defined	Interrupting their behavior or disruption of their daily activities, outside of management activities, such as moving animals to take photos or filming, feeding or touching or attempting to do these things would not be allowed.	Same as A	Same as B
	Wild Horse Protection: Seasonal Road Closures	Motorized travel limited to designated routes. There would be no seasonal road closure during foaling season or for habitat protection.	Motorized routes within the PMWHR would be designated according to the Pryor TMA. Burnt Timber Road from the East Pryor Mine (the abandoned uranium mine) to the USFS boundary and Sykes Ridge Road from the Sykes horse trap to the USFS boundary would be closed to provide protection during the primary foaling season and protecting habitat when roads are not ready for travel due to moisture content in soils (March 1-June 30).	Motorized routes within the PMWHR would be designated according to the Pryor TMA. There would be no seasonal road closure during foaling season or for habitat protection	Motorized routes within the PMWHR would be designated according to the Pryor TMA. Burnt Timber Road from the East Pryor Mine (the abandoned uranium mine) to the USFS boundary and Sykes Ridge Road from the horse trap to USFS boundary would be closed to wheeled vehicles and motorized vehicles to protect wild horse foaling and their habitat (April 15 to June 15) providing consistency with the USFS seasonal closures.
	Wild Horse Protection: Fencing	Exclusion fences for study, riparian protection or rehabilitation would be allowed.	No exclusion fences would be allowed within the HMA.	Same as A	Exclusion fences for study, range improvements, riparian protection or rehabilitation would be allowed through site-specific analysis.

2-6.3 Detailed Table of Alternatives: Special Designations

Pryor Mountain Wild Horse Range					
Record#	**Management Activity**	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
	Wild Horse Protection: Wild horse health	No current management decision provided	Domestic horse use would not be allowed except for special recreation permits or livestock trailing.	Domestic horse use would be allowed during overnight camping (16 day limit). Recreational domestic horse use would require proof of a free-use permit to ensure animals have health certifications to protect wild horses from disease transmission.	Domestic horse use would be limited to day use only. Recreational domestic horse use would require a free-use permit to ensure animals have health certifications to protect wild horses from disease transmission.
	Wild Horse Habitat Enhancement	Considered on a site specific basis.	No vegetation treatments would be conducted in wild horse habitat; only allow natural processes to occur.	Maximize the amount of acres for vegetation treatment and water developments that would increase forage availability for wild horses, to maximize and/or increase wild horse numbers within other multiple uses and restrictions.	Same as C
	Public Health and Safety: Target shooting	No current management decision provided	Not allowed	Allowed	Not allowed on T8S R28E Memorial day weekend through Labor day weekend. Allowed in remainder of PMWHR
	Public Health and Safety: Speed limits for mechanized and motorized vehicles	No current management decision provided	Not to exceed 15 miles per hour	No limit	Not to exceed 15 miles per hour within T8S R28E
	Livestock grazing	The PMWHR would be unavailable for livestock grazing, except for trailing through Bad Pass.	The PMWHR would be unavailable for livestock grazing.	Bad Pass Trail would be managed as a livestock grazing allotment for trailing use only. The remainder of the PMWHR would be closed to livestock grazing.	Same as C
	Special Recreation Permits	Current levels of permitted use with approximately 1,200 visitor use days in the PMWHR would be managed per application, with no limit on commercial permits.	No commercial special recreation permits (SRPs) would be authorized in the PMWHR. Non-commercial, organized group events would be considered per application dependent on site specific analysis and	An Outfitter Permit Area (OPA) would be established in the PMWHR in order to protect wild horses, resources within the range, and minimize conflicts based on site specific analysis	SRPs for wild horse viewing would initially be limited to existing SRPs. Additional (new) wild horse centered SRPs would be permitted only when determined not to result in

2-6.3 Detailed Table of Alternatives: Special Designations

Pryor Mountain Wild Horse Range					
Record#	**Management Activity**	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
			monitoring.	and monitoring. Visitor use days for both commercial and non-commercial permits would be analyzed through site-specific analysis and monitoring and would also consider other commercial permitted uses.	congestion, wild horse displacement or cause an adverse experience for members of the public viewing wild horses outside of an SRP experience through monitoring of existing SRPs and visitation.
	Land use authorization	Exclusion area	Exclusion area, except valid existing rights.	Avoidance (1)	
	Land tenure	No current management decision provided	Category I retention land: no land disposal would occur		
	Off-highway vehicle use (including snowmobiles)	Limited to designated routes (refer to Pryor TMA)	Limited to designed routes (refer to Pryor TMA).	Limited to designated routes (refer to Pryor TMA).	Limited to designated routes (refer to Pryor TMA).
	BLM road maintenance	No current management decision provided	Limited (4)		
	Plant collecting	No current management decision provided	Allowed for scientific use or range/forestry studies. No collection of special status species without a permit.	Allowed for personal use as well as scientific use and range/forestry studies. No collection of special status species without a permit.	Allowed (3)
	Fluid Mineral leasing	Closed to oil and gas leasing and development (NL)	Closed to oil and gas leasing and development (NL).	Closed to oil and gas leasing and development (NL).	Closed to oil and gas leasing and development (NL).
	Locatable minerals	Closed and recommended for withdrawal	Close and recommend withdrawal from mineral entry, subject to valid existing rights.	Open	Same as B
	Solid leasable minerals	No current management decision provided	Closed, subject to valid existing rights.	Open (5)	Same as B
	Mineral materials sales and permits	Not allowed	Not allowed	Allowed (9)	
	Renewable energy	No current management decision provided	Closed (6)		

2-6.3 Detailed Table of Alternatives: Special Designations

Pryor Mountain Wild Horse Range					
Record#	**Management Activity**	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
	Geophysical exploration for oil and gas	Not allowed			
	Use of explosives for geophysical exploration for oil and gas	No current management decision provided	Not allowed		
	Fire suppression	Conditional fire suppression	Wildfire management (natural ignitions) for resource benefit. Appropriate fire management in response to human-ignited fires.	Appropriate fire management protection strategies.	Same as B
	Fuels management	No current management decision provided	Allowed (8)		
	Fuel wood cutting/wood product sales	Not allowed	Not allowed	Casual collection of dead and down allowed for personal use during recreation activities.	
	Range improvements	No current management decision provided	Allowed (5)		
	Noxious/Invasive weed treatments	No current management decision provided	Allowed (5) (10)		
	Animal trapping/traplines	No current management decision provided	Not allowed	Allowed	
	Non-commercial collection of common invertebrate and plant fossils	Allowed			
	Other permitted activities	No current management decision provided	No commercial film permits allowed	Allowed (5)	Allowed (5)
	Transportation	No current management decision provided	No net increase in road density	Routes for commercial or other BLM authorized activities may be considered if the route meets public access needs.	Same as C
	Other management activities	No current management decision provided	Other management activities and/or uses would be considered in subsequent site-specific analysis, and would consider the values for which the PMWHR is designated (5).		

2-6.3 Detailed Table of Alternatives: Special Designations

National Historic Trails				
Record#	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
National Historic Trails are extended trails that closely follow a historic trail or route of travel of national significance. Congressional designation identifies and protects historic routes, historic remnants, and artifacts for public use and enjoyment. National Scenic Trails are extended trails that provide maximum outdoor recreation potential and for the conservation and enjoyment of the various qualities – scenic, historical, natural, and cultural – of the areas they pass through. The Billings Field Office manages portions of two designated National Historic Trails, the Lewis and Clark Trail and the Nez Perce National Historic Trail. Pompeys Pillar National Monument is a national historic trail-related site.				
National Historic Trails – Desired Outcomes (Goals and Objectives)				
The BLMs intent is to protect National Historic Trails for long-term heritage and educational values and to enhance the public experiences of these unique trails through interpretation and support of heritage tourism while maintaining compatible recreational use with historic trail values.				
National Historic Trails – Management Common to All Alternatives				
	Implement the Interagency National Historic Trail Plans for the Lewis and Clark and Nez Perce National Historic Trails. Participate in the Interagency planning update efforts as needed.			
	The NHTs would be exclusion areas for wind energy ROW actions.			
	Identify and acquire from willing sellers easements and lands. See Lands and Realty Section for additional references			
	Retain public land within federal ownership			
	The Lewis and Clark NHT would be withdrawn from mineral actions. Once the actual Nez Perce NHT course is determined it would also be withdrawn			
	Minimize changes that would result in degradation of resource values or opportunities for sharing the experience of the original users of the NHTs.			
	Identify the Nez Perce NHT Corridor and establish management prescriptions once the corridor has been determined			
	Support partnerships and cooperative agreements with other agencies, local and state authorities, and NGOs to implement stewardship and educational goals for the NHTs. Support the Montana site stewardship program for monitoring and evaluation of significant trail resources.			
Management Common to Action Alternatives				
	No current management decision provided	The setting for the Lewis and Clark and Nez Perce NHTs segments would be maintained where setting is an aspect of integrity by utilizing viewshed management tools.		
	No current management decision provided	An inventory and evaluation would be maintained for the trail segments and include this data in a trails management plan.		
	No current management decision provided.	Manage NHTs as ROW avoidance areas.		
Management Actions by Alternative				
	No current management decision provided	Surface disturbing activities would not be allowed within ½ mile of the L&C or NP NHTs.	Surface disturbing activities would be subject to mitigation guidelines for surface disturbing activities.	Surface disturbing activities would be subject to mitigation guidelines.
	No current management decision provided	No surface occupancy for oil and gas development and exploration within ½ mile of the L&C and NP NHTs (NSO).	Oil and gas development and exploration would be allowed within 1/2 mile of the L&C and NP NHTs with stipulations (CSU).	Same as B
	Manage NHTs as Visual Resource Inventory (VRI) Class III.	Manage NHT trails as Visual Resource Management (VRM) Class II once specific trail course has been identified	Manage NHT trails as Visual Resource Management (VRM) Class III once specific trail course has been identified	Manage NHT trails as Visual Resource Management (VRM) Class II once specific trail course has been identified

Table 2-6.4 Detailed Table of Alternatives (Social and Economic Conditions)

Social and Economic Conditions and Environmental Justice				
Record #	**Alternative A (No Action)**	**Alternative B**	**Alternative C**	**Alternative D (Preferred Alternative)**
The goals and objectives for social and economic conditions and environmental justice would provide for a diverse array of opportunities that result in social and economic benefits for interested groups and individuals such as local residents, recreationists, permittees, etc. The use of lands and minerals managed by the BLM provide opportunities to contribute to local, state, and national economic development and growth. Opportunities to use and develop these lands and minerals, as well as the costs and likelihood of these lands and minerals being used and developed given other resource management objectives and constraints, vary among the alternatives described and analyzed. The positive and negative social effects to the various groups and individuals are identified in the effects analysis. During social effects analysis, identity disproportionate negative effects to minority or low income populations per Executive Order 12898. If negative disproportionate effects are identified, remediate these effects to the extent possible by identifying mitigation to be added to the alternatives where the effects are found.				
Desired Outcomes (Goals and Objectives)				
• Provide opportunities for economic sustainability at the national, regional, and local level. • Provide for a diverse array of opportunities that result in social benefits for local residents, businesses, recreationists, visitors, interested citizens and future generations, while minimizing the negative social effects. • Identify and remediate, to the extent possible, disproportionate negative effects to minority or low income populations per EO 12898. • BLM would continue to notify and consult with appropriate American Indian Tribes and BLM authorized actions. Consultation and coordination would be conducted on a government-to-government basis with federally recognized tribes with cultural affinity to the decision area. Management of public lands would accommodate the exercise of rights provided by treaties or law that are applicable to the planning area. BLM would coordinate with appropriate entities within tribal government on issues under its jurisdiction to determine appropriate protocols that provide for treaty uses of public lands.				

2.7 Summary of Environmental Consequences by Alternative

Table 2-7(Summary Comparison of Impacts by Alternative) summarizes potential meaningful impacts anticipated from activities within the Billings Field Office decision area by alternative. Where applicable, potential impacts anticipated from the BLM actions are quantified. Table 2-1 summarizes the difference of impacts to alternatives in acres and actions. For example, a greater acreage implies a greater impact (either beneficial or adverse). A more detailed comparison of impacts between alternatives is summarized in the conclusion for each resource section in Chapter 4.

Table 2-8 (Summary Comparison of Impacts) summarizes potential meaningful impacts anticipated to economics from activities within the Billings Field Office decision area by alternative.

The environmental consequences of alternatives are not anticipated to exceed known legal thresholds or standards over the life of the plan. Standard practices, best management practices, and guidelines for surface disturbing/disruptive activities are built into each alternative to avoid and minimize potential impacts. Mitigation of residual impacts will be considered during subsequent implementation decision plans and any associated environmental analyses conducted at that time. Reclamation will be applied to surface disturbance under all alternatives to reduce the amount of long-term impact.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Air			
The largest impacts to air resources would be caused by emissions from fire management, coal mining, and oil and gas activity. Additional activities that could affect emissions include the following resource programs: Soil Management, Vegetation Management, Forestry and Woodland Products, Lands and Realty, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management. Other programs were determined to have small emissions with little or no impact on air resources.			
Alternative A emissions are summarized in Table 4-14, and detailed emission calculations are provided in Appendix Y. Fire management activities would cause the greatest CO, SO_2, and $PM_{2.5}$ emissions, while oil and gas development and production would account for the largest NO_x, VOC, and HAP emissions. Recreational visits would cause the greatest PM_{10} emissions.	Alternative B emissions are summarized in Table 4-15. The largest Alternative B emissions of CO, NO_x, $PM_{2.5}$, VOCs, and HAPs would result from fire management activities. Coal mining would cause the greatest SO2 emissions, while oil and gas development and production would account for the greatest VOC emissions. Recreational activities are expected to cause the greatest PM_{10} emissions.	Alternative C emissions are summarized in Table 4-16. Total Alternative C emissions are nearly identical to those for Alternative B, but are greater than those for Alternative A.	Alternative D emissions are nearly identical to those for Alternatives B and C, but are greater than those for Alternative A. Alternative D emissions are summarized in Table 4-17.
Climate			
In terms of quantifiable changes in estimated GHG emissions, Alternative A would have slightly lower climate impacts than the other Alternatives. However, the quantifiable differences between the Alternatives' GHG emissions could have less impact than net GHG differences that may occur due to carbon sequestration in vegetation and soils.	Based on estimated GHG emissions, Alternative B would lead to an approximate 1% increase in emissions over Alternative A. Alternative B closes the most travel routes and imposes the greatest limits on some recreational and commercial uses (oil and gas, coal, and forest products) of public lands. Travel route and recreational closures and constraints on oil and gas surface occupancy would do little to reduce emitted GHGs since use would shift to open routes and surface occupancy areas and emissions would remain relatively unchanged. Alternative B would not allow any new federal coal leasing actions. However, if federal coal has already been leased, mining would continue to occur. Therefore, quantifiable GHG emissions are conservatively estimated to include continued coal mining. Increased prescribed fire would lead to a temporary increase in GHG	Alternative C offers the most open travel routes, recreational opportunities, and commercial use of resources, although increases in quantifiable GHG emissions over Alternatives B and D are negligible. More surface disturbance is allowed in Alternative C than in Alternative B, which could potentially allow more vegetation treatments designed to improve long-term vegetation health and reduce wildfire potential. Removing underbrush and small trees, which store less carbon, would allow faster growth of larger trees resulting in more long-term carbon sequestration. The increase in vegetation treatments would be driven by budget constraints, keeping treatments small and the increase in carbon uptake would be minor.	Based on estimated GHG emissions, climate impacts in Alternative D would be greater than those for Alternative A and similar to those for the other Alternatives. Alternative D provides balance between climate change emissions, recreation, commercial demand, healthy vegetation, and carbon sequestration.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
	emissions during these activities followed by a long-term decrease in net GHG emissions (Wiedinmyer 2010). As a result, forested and grass/shrub lands would improve as carbon sinks and help reduce the net GHG emissions within the planning area Mandatory monitoring and adherence to range standards, stream zone law, and use of BMPs allows adaptive management strategies that would successfully address impacts from climate change. The limitation on surface disturbance on slopes <30%, or in areas such as crucial winter range, would limit vegetation treatments designed to maintain and/or enhance vegetation and reduce the risk of wildfire. Hence the likelihood of large fires, releasing large amounts of carbon would increase and the net amount of carbon stored would decrease sharply and slowly return over 25–50 years.		
Soil			
Impacts to soils resources would likely result from actions proposed under the following resource programs: Soil Resources, Water Resources, Vegetative Communities, Fish, Wildlife and Special Status Species, Wild Horses and Burros, Visual Resources, Fire Ecology and Management, Lands with wilderness characteristics, Energy and Minerals, Forest and Woodland Products, Lands and Realty, Livestock Management, Recreation and Visitor Services, Trails and Travel Management, Renewable Energy, Special Designations: Pompeys Pillar, Areas of Critical Environmental Concern, Wilderness Study Areas. Other programs were determined to have little or no impact to soils resources.			
	Alternative B would place more restrictions to surface use authorizations, therefore protecting the most soil resources compared to all other Alternatives.	Alternative C would have the fewest restrictions to surface use authorizations, therefore protecting the least soil resources of all Alternatives.	Alternatives A and D also place restrictions to surface use authorizations. Restrictions are typically less than B but more than C, generally with more restrictions on Alternative D than A.
Water			
The management actions associated with the resources listed below may have impacts on riparian resources: Soil, Water, Vegetation, Wildlife and Special Status Species, Fisheries and Special Status Species, Wild Horses and Burros, Visual Resources, Fire Ecology and Management, Lands with wilderness characteristics, Energy and Mineral Resources, Forestry and Woodland Products, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, Renewable Energy, Special Designations. Those not listed are believed to have negligible or unapparent impacts.			
Under all Alternatives, water resources would benefit from management in accordance with Rangeland Health Standards and applicable state and federal water-quality standards. Site-specific mitigation and BMPs for surface disturbing activities would further reduce impacts on water resources. Adherence to these standards would reduce many of the adverse impacts from future actions.			

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
In addition, existing and proposed stipulations designed to protect water resources would be beneficial by minimizing sediment and contaminant delivery potential by preventing or limiting surface-disturbing activities in proximity to hydrologic features. Stipulations and limitations for other resources that prevent or limit surface disturbing activities would provide additional protection for water resources and thereby could be beneficial (e.g., fisheries, riparian). Furthermore, timing limitations could benefit water resources by limiting or preventing surface-disturbing activities during times of the year when saturated soil conditions exist or when precipitation and runoff are frequent (e.g., winter, spring). However, with the scattered distribution and sparse ownership of BLM administered lands in the planning area, stipulations and management actions to minimize impacts to water resources may not prevent impaired water quality on BLM waterways, as is the current situation in some areas.			
Vegetation: Forests and Woodlands and Forestry and Woodland Products			
Impacts to forest and woodlands/forestry and woodland products would likely result from actions proposed under the following resources and resource use programs: Air, Soil, Water, Vegetation, Wildlife Habitat and Special Status Species, Fisheries Habitat and Special Status Species, Cultural Resources, Paleontological Resources, Visual Resources, Fire Ecology and Management, Lands with wilderness characteristics, Lands and Realty, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, Transportation and Facilities, and Special Designations. Other programs were determined to have little or no impact on Vegetative Communities – Forests and Woodlands/Forestry and Woodland Products.			
Alternative A would provide an incidental low volume of commercial forest products and contribute to a decline in forest health, productivity, and resiliency. Under this Alternative, forest management activities requiring the use of wheeled or tracked logging equipment would be restricted to sustained slopes of 35% or less, allowing forest treatments on 68% of forested acres not restricted by WSAs or ACECs; thereby limiting or prohibiting some forest treatment activities. The impacts of these actions would increase total costs and alter management activities; including the size, scale, type, location, and timing (e.g., temporary skid and haul road layout, skidding distances, cutting unit design, harvest system requirements, transportation systems, season of operations, mitigation measures, and silvicultural prescriptions) of treatments designed to improve forest health. The availability of forest and woodland products, especially sawtimber, biomass, and post and pole material would be reduced due to the high cost of operations in areas where tracked and wheeled operations are not allowed.	Alternative B would also provide an incidental-low volume of commercial forest products and contribute to a decline in forest health, productivity, and resiliency. Impacts would be similar to Alternative A; however, forest management activities requiring the use of wheeled or tracked logging equipment would be limited to sustained slopes of 30% or less. As a result, mechanical treatment and harvest would only be allowed on approximately 60% of coniferous forest acres not restricted by WSAs or ACECs. This would result in higher cost treatment acres and would further reduce the level of forest management treatments and timber harvest that would occur. Consequently, forest and woodland areas would be at risk for extensive resource damage or loss due to landscape-level insect outbreaks or severe or high intensity wildfires.	Alternative C would provide a moderate volume of commercial forest products and contribute to long-term forest health improvement. Under this Alternative, forest management activities requiring the use of wheeled or tracked logging equipment would be restricted to sustained slopes of 45% or less; thereby allowing forest treatment activities on 79% of forested acres not restricted by WSAs and ACECs. Implementation of silvicultural treatments in forests and woodlands would reduce the density of overstocked stands, which would subsequently reduce competitive stress for water, sunlight, and nutrients, and reduce the susceptibility of forests and woodlands to insect attacks, disease, and stand-replacing fire. Lower stand density levels and increased sunlight would promote tree growth and ponderosa pine and limber pine regeneration. Alternative C would contribute to the overall vigor, productivity, and resiliency of forest and woodland vegetation in the planning area and the restoration historic conditions.	Alternative D would provide a low-moderate volume of commercial forest products and contribute to long-term improvements in forest health. Under this alternative, slope restrictions would be reduced to 25%; however, actions would be allowed if an approved mitigation and reclamation plan (e.g., Water Quality Best Management Practices for Montana Forests) is developed prior to activities taking place. As a result, the number of forested acres that would receive silvicultural treatments designed to reduce the density of overstocked stands would increase; thereby reducing competitive stress for growing space (e.g., water, sunlight, nutrients, etc.) and the area's susceptibility to insect attacks, disease, and stand-replacing wildfire. Alternative D would also contribute to the overall vigor, productivity, and resiliency of forest and woodland vegetation in the planning area and the restoration of historic conditions.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
As a result, forests and woodlands would continue to depart from historic conditions, which would contribute to a decline in forest health, species composition changes, increased stand density levels and fuel loadings, and increased susceptibility of these areas to insect and disease epidemics. Competition for resources (e.g., sunlight, water, and nutrients) would increase stress to forest and woodland vegetation across the entire landscape, which would result in declining vigor, productivity, and resiliency to disturbances (e.g., wildfire, insects, and disease).			
Vegetation: Rangelands			
Management actions for the following resource programs would result in specific minor to moderate adverse impacts, and substantial beneficial impacts to vegetation resources: Soil, Water, Vegetation, Wildlife and Fisheries Habitat and Special Status Species, Fire Ecology and Management, Energy and Mineral Development, Forestry and Woodland Products, Lands and Realty, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, and Special Designations. Other programs were determined to have little or no impact on rangeland vegetation communities.			
Alternative A is the current acres planned for the treatment of sagebrush and crested wheatgrass stand within the planning area. Impacts to sage grouse habitat are not considered under this alternative. Instead, impacts to livestock forage are emphasized.	Alternative B would not allow any use of prescribed in sagebrush habitat, and require full suppression of any wildfires in this community type. Impacts from this alternative would limit the number and kind of tools available for improving sagebrush habitat. Under this alternative, a total of **fifteen** percent of crested wheatgrass acres would be converted to native sagebrush/ grassland over the life of the plan. This is the highest number of treatment acres of all of the alternatives.	Alternative C considers the use of prescribed fire and wildland fire as a treatment options in sagebrush habitat if the treatment would achieve a diversity of age classes in sagebrush communities *"… if the treatment would achieve a diversity of age classes in sagebrush communities"*. Under this alternative, a total of **five** percent of crested wheatgrass acres would be converted to native sagebrush/ grassland over the life of the plan. This is the lowest of number of acres under Alternatives B, C and D but higher that Alternative A.	Alternative D also considers the use of prescribed fire and wildland fire as a treatment options in sagebrush habitat if the treatment would achieve a diversity of age classes in sagebrush communities *"… if the treatment would achieve a diversity of age classes in sagebrush communities"*. Under this alternative, a total of **eight** percent of crested wheatgrass acres would be converted to native sagebrush/ grassland over the life of the plan. This number of acres is lower that Alternatives A and C but higher that Alternative B.
	The impacts of Alternatives B, C and D would increase total costs and alter management activities including the size, scale, type, location, and timing of treatments designed to improve rangeland health and protect and improve sagebrush habitat.		
Preferred treatment areas are not considered	Preferred treatment areas would be areas that are not currently being used in a grazing system to provide early spring grazing and reduce grazing		

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
under Alternative A. Priority treatment areas are also not considered under Alternative A.	pressure from other areas within a grazing allotment, and is consistent throughout Alternatives B, C and D. Priority treatment areas would be in sage-grouse PPAs, RAs and general habitat and is also consistent throughout Alternatives B, C and D.		
Vegetation: Riparian and Wetlands			
The management actions associated with the resources listed below may have impacts on riparian resources: Soil, Water, Vegetation, Wildlife Habitat and Special Status Species, Fisheries Habitat and Special Status Species, Wild Horses and Burros, Visual Resources, Fire Ecology and Management Lands with wilderness characteristics, Energy and Mineral Resources, Forestry and Woodland Products, Lands and Realty, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, and Special Designations. Those not listed have negligible or unapparent impacts.			
Under all Alternatives, riparian resources would benefit from management in accordance with Rangeland Health Standards. Site-specific mitigation and BMPs for surface disturbing activities would further reduce impacts on riparian resources. Adherence to these standards would reduce many of the adverse impacts from future actions. In addition, existing and proposed stipulations designed to protect riparian resources would be beneficial by minimizing sediment and contaminant delivery potential by preventing or limiting surface-disturbing activities in proximity to hydrologic features. Stipulations and limitations for other resources that prevent or limit surface disturbing activities would provide additional protection for riparian resources and thereby could be beneficial (e.g., fisheries, water, wildlife, LWC, etc.). Furthermore, timing limitations could benefit riparian resources by limiting or preventing surface-disturbing activities during times of the year when saturated soil conditions exist or when precipitation and runoff are frequent (e.g., winter, spring). However, with the scattered distribution and sparse ownership of BLM administered lands in the planning area, stipulations and management actions to minimize impacts to riparian resources may not prevent impaired water quality on BLM administered lands, as is the current situation in some areas.			
Alternative A represents how impacts have affected riparian resources under current management. Currently, the primary sources of riparian impairment are livestock grazing and invasive species infestations. At this time, approximately 40% of riparian areas are in Properly Functioning Condition (PFC), while 46% are rated as Functioning at Risk (FAR) and 6% Non-Functioning (NF). 8% are unknown/unsurveyed. Current management requires riparian areas to be meeting PFC, or if FAR, moving toward PFC. Rangeland and riparian specialists would adjust grazing practices to attain these ratings where possible (if livestock grazing is identified as the causal factor or impairment). Other resource uses have negligible impacts on riparian resources under this alternative.	Under Alternative B management, riparian resources would have the most protection and should attain the highest state of functionality compared to any other alternative. Management actions for all resources and resource uses have the most restrictions to surface disturbing activities and potential invasive species infestation under this alternative. Increased buffer distances for oil and gas development, other surface disturbing activities and livestock exclusion from fish bearing streams are examples of restrictions made to conserve or improve riparian resources. Establishing 78 miles of "priority riparian habitat" will ensure increased monitoring and management action to attain PFC conditions on perennial streams.	Impacts to riparian resources would be similar to impacts from Alternative A. There are still appropriate measures taken to protect riparian areas from erosion, sedimentation and invasive species infestation, however, being less restrictive that alternative B and D actions, there is a higher potential for degradation. Livestock grazing and weed infestation would still be the primary source of impairment for riparian areas and would be managed using the standards and guidelines for livestock grazing. These methods, as described under alternative A impacts, require managers to change grazing practices to move riparian status towards PFC or maintain PFC when already meeting.	Impacts to riparian resources from actions under Alternative D would be negligibly different than alternative B impacts.
Vegetation: Invasive Species and Noxious Weeds			

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Impacts to noxious and invasive species would likely result from actions proposed under the following resource and resource uses programs: Soil, Water, Vegetation, Wildlife Habitat, Fisheries Habitat and Special Status Species, Wild Horses and Burros, Cultural Resources, Visual Resources, Fire Ecology and Management, Lands with wilderness characteristics, Energy and Mineral Resources, Forestry and Woodland Products, Lands and Realty, Livestock Grazing, Recreation, Visitor Services, and Trails, Travel Management, Renewable Energy, and Special Designations. Other programs were determined to have little or no impact on noxious and invasive species.			
Across all Alternatives, the BLM would continue to monitor and treat new and existing populations of noxious and invasive weeds and would continue to work with partners from local, state, and federal agencies to control weeds on a broad scale. The BiFO would continue implementation of integrated weed management while adhering to federal, state, and county laws and regulations			
The BLM would continue to monitor and treat new and existing populations of noxious and invasive weeds	The cumulative surface disturbance acreage across the BiFO is anticipated to be the least under Alternative B. Because weed invasion and spread is directly related to the amount of surface disturbance, Alternative B would have the least risk of weed spread.	The cumulative surface disturbance acreage across the BiFO is anticipated to be the most under Alternative C. Because weed invasion and spread is directly related to the amount of surface disturbance, Alternative C would have the most risk of weed spread.	Alternative D would have slightly more surface disturbance than under Alternative B but substantially less than under Alternative C.
Vegetation: Special Status Plants			
Impacts to special status plants would likely result from actions proposed under the following resource programs: Soils, Vegetative Communities, Wildlife and Fisheries Habitat and Special Status Species, Wild Horses and Burro Management, Fire Ecology and Management, Cave and Karst Resources, Energy and Minerals Management, Livestock Grazing Management, Recreation and Visitor Services Management, Trails and Travel Management, Forestry and Woodland Products, Lands and Realty, Renewable Energy, and Special Designations. Other programs were determined to have little or no impact on special status plants.			
The principle adverse impacts to BLM special status plant species result from management that increases surface disturbance and habitat fragmentation; the principle beneficial impacts include management that increases restrictions in known or potential BLM special status plant species habitat. Based on the acreage of surface disturbance, the potential for habitat fragmentation, and proactive management actions and special designations to protect BLM special status plant species, Alternatives with the least to most potential adverse impacts to BLM special status plant species are Alternatives B, D, A, and C. Alternative B would result in the least surface disturbance and habitat fragmentation, followed by Alternatives A, D, and C respectively. Alternative D contains management actions to minimize habitat fragmentation. Alternative B includes the most provisions to protect sensitive soils and riparian areas for the benefit of BLM special status plants. Restrictions on motorized vehicle use, especially restricting motorized cross-country travel, would reduce adverse impacts to BLM special status plant species in all Alternatives.			
Wildlife Habitat and Special Status Species			
Impacts to wildlife and special status species would likely result from actions proposed under the following resource programs: Soil Resources, Water Resources, Vegetative Communities, Wildlife Habitat and Special Status Species (Wildlife), Fisheries Including Habitat and Special Status Species (Fisheries), Wild Horses and Burros, Visual Resources, Fire Ecology and Management, Lands with Wilderness Characteristics, Cave and Karst Resources, Energy and Mineral Resources, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, Forest and Wood Products, Lands and Realty, Transportation/Facilities Access, Renewable Energy, and Special Designations. Other programs were determined to have little or no impact on wildlife and special status species.			
Because this area is mixed ownership with scattered public lands and BLM lands may have more restrictions for oil and gas leasing, oil and gas development companies would develop adjacent private and other lands rather than lease public lands. Wildlife management opportunities for the BLM are very limited in scattered land ownership areas due to the influence of developments on adjacent private lands. Mobile wildlife species, such as big game and birds, may be directly affected by management of habitat on surrounding ownerships.			
Actions that remove, degrade, or fragment wildlife habitat are considered adverse. Beneficial impacts include actions that conserve or improve habitats, such as big game crucial winter range, nest sites, or leks. Habitats can be lost and fragmented by activities such as vegetation treatments; fire and fuels management. Indirect impacts to wildlife can occur by changing habitat characteristics or			

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
quality. Habitat quality can be impacted by various surface-disturbing activities and other actions that remove vegetation and disturb soil. Indirect impacts to wildlife habitats also could occur when specific actions change the habitats in a way that would make it unsuitable for future habitation. The allowable uses and management actions for resources and resource uses are anticipated to result in a mix of beneficial and adverse impacts relative to wildfire management. The numbers of acres potentially impacted are identified in Table 4-24 "Average Treatment Acreage by Alternative."			
Alternative A would provide incidental impacts from management activities that have the potential to adversely affect wildlife and special status species (surface disturbance, disruptive activities, and direct habitat alteration/loss). However, fire management resulting in habitat manipulations could benefit wildlife and special status species over the long-term by improving vegetative conditions that are linked to forage and cover.	Alternative B, fire suppression activities would be limited to urban and industrial interface and developed recreational and electronics areas, reducing impacts to big game and sage-grouse. Within these areas, any heavy equipment needed for suppression operations would be restricted to existing roads and trails or immediately adjacent to them, therefore avoiding adverse impacts within sensitive wildlife and special status species habitats.	Alternative C, suppression operations, including the use of heavy equipment would have fewer restrictions, which could degrade wildlife and special status species habitat. Impacts from wildfire management would have the same impacts as listed under Alternative B, except there would be no use of naturally ignited fires to benefit wildlife and associated habitat resources. This could limit possible restoration through fire, necessary in certain habitats. In addition, prescribed fires would be allowed, including sage-grouse habitat, if the activity is determined to benefit the sagebrush community or meet other resource objectives. This action would have short-term adverse impacts to species dependent on sage brush communities, but long-term beneficial impacts would be expected.	Alternative D fire suppression activities would be limited to urban and industrial interface and developed recreational and electronics areas, reducing impacts to big game and sage-grouse. Within these areas, any heavy equipment needed for suppression operations would be restricted to existing roads and trails or immediately adjacent to them, therefore avoiding adverse impacts within sensitive wildlife and special status species habitats. Prescribed fires would be allowed, including sage-grouse habitat, if the activity is determined to benefit the sagebrush community or meet other resource objectives. This action would have short-term adverse impacts to species dependent on sage brush communities, but long-term beneficial impacts would be expected.
This alternative would allow greater impacts to wildlife and SSS to occur and less beneficial wildlife habitat treatments would be developed than Alternatives, B, C, and D. Actions not addressed in this alternative, are travel management or road densities within important wildlife habitats, guidelines for stipulations to be applied to the operation and maintenance of production facilities or other projects, or restrictions for oil and gas leasing, development, and exploration within designated State Wildlife Management Areas. As a result, impacts to wildlife and associated habitat could include short-term and long-term adverse habitat loss and fragmentation, species displacement due to disturbance, and	Alternative B has additional protection for wildlife resources, including updated and larger scale stipulations for development versus Alternatives A and C. Alternative B would provide more protection than other Alternatives to wildlife and special status species from surface disturbance and disruptive activities, including travel management and road densities. This Alternative Closes or limits to administrative access more route miles than all Alternatives. Alternative A designates 83% of route miles as open, Alternative C designates 90% of route miles as open, and Alternative D designates 62% of route miles as open.	Generally, the impacts to wildlife and SSS would be greater than those described under Alternatives B and D, with less protection to wildlife resources due to smaller buffers and fewer avoidance areas for ROWs and other potential development. There would be less impact to wildlife than Alternative A with greater restrictions and areas closed to travel, and other development.	The impacts to wildlife and SSS, would be the same as those described under Alternative B, with less protection to wildlife resources due to smaller buffers and fewer exclusion areas for potential development. Management actions would be less beneficial to wildlife and special status species than actions provided under Alternative B, creating the potential for more adverse impacts from human disturbance and habitat loss from surface disturbing activities, although protections would be greater than Alternatives A and C. Under Alternative D, there would be 614 miles of open routes (62% of all route miles). Alternative A designates 83% of route miles as open, Alternative B designates 35% of route miles as open and

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
degradation of habitat quality.			Alternative C designates 90% of route miles as open.
Particularly for sage grouse, recent research findings, have provided updated and more accurate seasonal timing restrictions and expanded protection distances. Research has demonstrated that both the 0.25 mile and 2 mile buffer distances are not adequate for the protection of sage grouse populations. Leks with at least one oil and gas well within a 0.4 km (0.25 miles) radius had 35-91% fewer attending males than leks with no well within this radius (Harju et al. 2010). A study in Musselshell and Golden Valley counties found that 98% of nest locations were within 3 miles of an active lek (Sika 2006). With regard to existing stipulations applied by the BLM (Walker et al. 2007a) research has demonstrated that the 0.4 km (0.25 mile) NSO stipulation is insufficient to conserve breeding sage grouse populations in fully developed gas fields because this buffer distance leaves 98% of the landscape with 3.2 km. (2 miles) open to full-scale development. Full-field development of 98% of the landscape with 3.2 km. (2 miles) of leks in a typical landscape in the Powder River Basin reduced the average probability of lek persistence from 87% to 5% (Walker et al. 2007a). Holloran (2005) shows that lek counts decreased with distance to the nearest active drilling rig, producing well, or main haul road, and that development influence counts of displaying males to a distance of between 4.7 and 6.2 km (2.9 and 3.9 miles). Models with development at 6.4 km (4 miles) had considerably less support, but the regression coefficient indicated that impacts were still apparent out to 6.4 km (4	This Alternative, including Alternatives C and D, designates sage grouse habitat areas (PPAs, RAs, and General Habitat areas) versus Alternative A that does not recognize any special designation for sage grouse habitat. PPAs would be closed to future oil and gas leasing, exploration, and development, and grazing allotments would be designated management Category I allotments. This alternative provides the greatest protection for the management of sage grouse and sage grouse habitat. Only Alternative B establishes the Greater Sage-Grouse Habitat ACEC on BLM-administered surface of sage-grouse PPAs (154,140 acres)	This alternative provides less protection for sage grouse and sage grouse habitat than Alternatives B and D and more protection than Alternative A. This is due to decreased protection distances and less restrictions than Alternatives B and D.	Within sage grouse PPAs, oil and gas leasing, development, and geophysical activities, as well as surface disturbance and disruptive activities would be similar to Alternative B. However, Alternative B is Closed to oil and gas leasing and Alternative D is an NSO. Grazing allotments would be designated management Category I allotments.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
miles) (Walker et al. 2007a).			
Fisheries Habitat and Special Status Species			
The management actions associated with the resources listed below may have impacts on water, riparian vegetation, fisheries, and special status fish species resources: Soil, Water, Vegetation Communities, Wildlife Habitat and Special Status Species, Fisheries Habitat and Special Status Species, Wild Horses and Burros, Visual Resources, Fire Ecology and Management, Lands with wilderness characteristics, Energy and Mineral Resources, Forestry and Woodland Products, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, and Special Designations. Those not listed have negligible or unapparent impacts			
Under all Alternatives, fisheries resources would benefit from management in accordance with Rangeland Health Standards and applicable state and federal water-quality standards. Site-specific mitigation and BMPs for surface disturbing activities would further reduce impacts on fisheries resources. Adherence to these standards would reduce many of the adverse impacts from future actions. In addition, existing and proposed stipulations designed to protect water, riparian and fisheries resources would be beneficial by minimizing sediment and contaminant delivery potential by preventing or limiting surface-disturbing activities in proximity to hydrologic features. Stipulations and limitations for other resources that prevent or limit surface disturbing activities would provide additional protection for fisheries resources and thereby could be beneficial (e.g., fisheries, riparian). Furthermore, timing limitations could benefit fisheries resources by limiting or preventing surface-disturbing activities during times of the year when saturated soil conditions exist or when precipitation and runoff are frequent (e.g., winter, spring). However, with the scattered distribution and sparse ownership of BLM administered lands in the planning area, stipulations and management actions to minimize impacts to fisheries resources may not prevent poor conditions on BLM waterways, as is the current situation in some areas.			
Under Alternative A actions, impacts to fisheries resources primarily occur from erosion, sedimentation and degradation of riparian resources. Currently, priority fishery resources are not being impacted from BLM authorized activities. Other fisheries resources are impacted from sediment delivery and degraded water quality. The source of these impacts is hard to identify, as the Billings Field Office has a scattered land pattern (for example, in many cases only a ¼ or ½ mile of stream may be managed by the BLM, while the remaining 10 miles is under private ownership). Where riparian conditions are degraded, alternative A requires management actions to move the area towards PFC. BLM authorized surface disturbing activities have negligible impacts to fisheries resources in all alternatives, however, proposed development would restrict activities that degrade water quality or riparian functionality (hence, protecting fisheries habitat and water quality) under this alternative.	Actions under Alternative B provide the highest level of protection to fisheries resources. Larger buffers and more restrictions for surface disturbing activities would be implemented to conserve fish habitat. Perennial and fish bearing streams would be classified a “priority” for monitoring and improvement.	Impacts would be the same as described in Alternative A.	Under Alternative D, impacts to fisheries resources would be negligibly different than impacts from Alternative B.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Wild Horses and Burros			
The following resources or resource uses have been determined to have little or no impacts to wild horses or the Pryor Mountain Wild Horse Range from BLM authorized uses and management: Air, Climate, Geology, Cave and Karst Resources, Energy and Mineral Materials, Forestry and Woodland Products, Renewable Energy, National Historic Trails, Transportation and Facilities, Wild and Scenic River, Fisheries Habitat and Special Status Species, Wildlife Habitat and Special Status Species.			
Under Alternative A, management of the PMWHR and wild horses would remain the same as is currently occurring.	Under Alternative B the PMWHR would be limited to within the 1968 and 1969 Secretarial Orders only. The maximum amount of protection would be allowed for the wild horses and the rangeland resources. The wild horse population would initially be managed for 90 wild horses due to a reduction from the current size and limited water sources. All range improvements would be removed (i.e. water tanks, guzzlers, reservoirs), access would be limited and natural processes would be primary to other resources. Greater potential for loss of genetic diversity (if no animals are introduced) would happen. Greater wild horse removals and other population control methods would occur under this management scenario.	Under Alternative C the PMWHR would be managed within the entire Herd Area. This Alternative would result in extensive fencing of private property owners and re-routing of county roads. The length of time to implement this could be very long. Wild horses would abut to private property owners and domestic horses. The boundary fence on the south end of the PMWHR would be the private property fence line. Within the confines of meeting other multiple-use mandates (i.e. WSA, ACEC, SSS protections) habitat and range improvement work would be maximized. Very little management of recreational and visitor activities would occur. The conflict between people and wild horses would increase. Impacts to wild horse habitat would increase from visitation and recreation under this Alternative.	Under Alternative D the PMWHR would be managed to include a majority of the Herd Area. The administrative pastures would be re-opened and a buffer between private property and the wild horse range would be in place to reduce conflict and protection of wild horses. Within the confines of meeting other multiple-use mandates (i.e. WSA, ACEC, SSS protections) habitat and range improvement work would be maximized. Area-wide restrictions would be implemented to enhance protections for wild horses, habitat, and public safety. More intensive management of recreational uses and visitor activities would occur. Conflict between users in and around wild horses would be reduced.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Cultural/Heritage Resources			
Impacts to cultural and heritage resources would likely result from actions proposed under the following resource programs: Water, Vegetation, Wildlife Habitat and Special Status Species, Fisheries Habitat and Special Status Species, Wild Horses and Burros, Cultural and Heritage Resources, Fire Ecology and Management, Visual Resources, Lands with wilderness characteristics, Energy and Mineral Resources, Forestry and Woodland Products, Lands and Realty, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, Renewable Energy, and Special Designations. Other programs were determined to have little or no impact on cultural and heritage resources			
Impacts to cultural resources in the Pryor Mountains would continue to occur as an indirect result of permits issues through the Recreation program (SRPs) and the Lands and Realty program (commercial film permits). This impact remains the same across all alternatives.			
	Under Alternative B, C, and D, authorized surface disturbances would be minimized (see glossary for definition of surface disturbing activities). This would protect cultural and heritage resources from being impacted by the proposed activity. However, as a cultural inventory is required for all surface disturbing activities, the knowledge gained by each inventory adds to the database of known and recorded sites, which enables the BLM to better manage the resources and activities occurring in a specific location.		
Under Alternative A, only specific identified/recorded sites would be allocated to conservation or socio-cultural use.	Under Alternative B the majority of National Register eligible sites would be allocated and managed by site type for Conservation, Traditional and/or Scientific Use. No interpretative sites would be considered or developed.	Under Alternative C the majority of National Register eligible sites would be allocated and managed by site type for Conservation, Scientific, Public and/or Traditional Use (as appropriate). Interpretative sites could be developed.	Under Alternative D the majority of National Register eligible site types would be allocated and managed by site type for Conservation, Scientific, Traditional, and/or Public Use. Interpretative sites would be considered and developed as appropriate for the resource.
Paleontological Resources			
Impacts to paleontological resources would result from actions proposed under the following resource management programs: Soil, Water, Vegetation, Wildlife Habitat and Special Status Species, Fisheries Habitat and Special Status Species, Cultural Resources, Paleontological Resources, Fire Ecology and Management, Lands with wilderness characteristics, Energy and Mineral Resources, Forestry and Woodland Products, Lands and Realty, Livestock Grazing, Recreation and Visitor Services, Trails and Travel Management, Renewable Energy, and Special Designations. For all Alternatives, Paleontological Resources would not be impacted by Air, Climate Change, Geology, Wild Horses and Burros, Visual Resources, Cave and Karst Resources, or Transportation and Facilities.			
Impacts on paleontological resources occur from natural weathering and erosion and from surface disturbing activities, excavation, and theft or vandalism. In general, impacts on paleontological resources include the physical destruction or damage of fossil-bearing geological formations resulting in the loss of vertebrate fossils or other scientifically significant fossil resources and their geologic content. Without removing some rock surrounding fossils, the fossils would remain largely undetected; therefore, management actions that result in erosion do not necessarily result in damage to paleontological resources. Excessive erosion, especially from other surface disturbance, could damage fossils at the surface.			
Impacts on paleontological resources would result from management actions that could cause surface disturbance. Because of their widespread occurrence and generally unsupervised nature, casual recreation and OHV use would likely have the greatest impact on paleontological resources. Unlike permitted activities (e.g. oil and gas development or ROW development) that are subject to site-specific evaluations and monitoring, recreation and OHV activity are not under much scrutiny. Lands and realty actions could also remove or add land subject to federal protections for paleontological resources. To a lesser extent, effects on paleontological resources could occur from actions that open or close land to minor surface disturbances, allow potentially incompatible uses, and actions that could affect natural processes such as erosion.			
The impacts to paleontological resources do not vary by Alternative, the intensity of impacts may vary, but the impacts are the same regardless of the Alternative. Management actions with the most			

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
potential to impact paleontological resources include minerals and energy development, fire suppression, vandalism, dispersed recreation, and unauthorized collection of paleontological resources.			
Paleontological Resources are mitigated on a case by case basis. No inventory is required.	Costs would increase for the proponents as a result of requiring an assessment, inventory and/or mitigation of paleontological resources if the activity is located in a PFYC Class 3 or higher area.		
No inventory required for surface disturbing activities occurring in PFYC 3 or higher areas.	Costs would increase for the proponent and the BLM as a result of assessment, inventory and/or mitigation of paleontological resources if the activity is located in a PFYC Class 3 or higher area.		
Visual Resources			
Impacts to Visual Resources would result from actions proposed under the following resource management programs: Vegetation, Wildlife habitat and Special Status Species, Fisheries habitat and special status species, Cultural Resources, Visual Resources, Wildland Fire Ecology and Management, Energy and Mineral resources, Forestry and Woodland Products, Lands and Realty, Livestock Grazing, Recreation, Trails and Travel Management, Renewable Energy, and Special Designations. Other programs were determined to have little or no impact on visual resources.			
The potential cumulative impacts of this RMP/EIS Alternative A, combined with past, present, and reasonably foreseeable future actions on visual resources could adversely affect visual resources and scenic quality from increasing minerals and recreation-related surface disturbances and from wildfires. However, mitigation would likely limit the impacts in viewsheds with high scenic quality in the BiFO.	Past and present management, and reasonably foreseeable future actions, combined with the proposed action Alternatives (the RMP/EIS Alternatives B, C, and D), would reduce the potential for cumulative impacts on visual resources, and preserve scenic quality. The risks of wildfire would be reduced within the BiFO and on adjacent national forests through increased vegetation treatments to reduce fuel loads; recreation activities and off-road travel would be managed to limit surface disturbances by greatly reducing the potential for illegal or unrestricted OHV use, so that areas inventoried as having high scenic quality would be preserved. Mineral exploration, development, and extraction, including oil and natural gas well drilling, are expected to increase over the next 15 years to 20 years, but visual resource management and associated mitigation would likely limit the impacts in view sheds with high scenic quality and in the adjacent national parks and national forests. Visual resource management would include conformance of minerals exploration and development activities with VRM class objectives, which would preserve scenic quality in the long term in areas that the plan has designated for scenic quality protection.		
Fire Ecology and Management			
Impacts to fire and fuels management would result from actions proposed under the following resource management programs: Air Quality, Vegetation, Special Status Species, Fish and Wildlife, Cultural Resources, Visual Resources, Fire and Fuels Management, Forestry and Woodland Products, Livestock Grazing, Recreation, Travel Management, Minerals and Energy, and Special Designations. Other programs were determined to have little or no impact on fire and fuels management.			
Actions limiting fire suppression tactics, thereby resulting in larger burn areas or more intense fire, are considered adverse impacts. Conversely, actions contributing to a decrease in the incidence of resource damaging wildfires, including restoring natural Fire Regime Condition Classes are beneficial impacts			
Wilderness Characteristics			
The types of impacts are described as being categorized based on the wilderness qualities of naturalness, undeveloped character, opportunities for solitude, or primitive and unconfined recreation and untrammeled quality. Impacts to non-WSA lands with wilderness characteristics would likely result from actions proposed under the following resource management programs: Vegetation, Wildlife Special Status Species, Fish Special Status Species, Wild Horses and Burros, Cultural Resources, Visual Resources, Wildland Fire Ecology and Management, Wilderness Characteristics, Minerals and Energy, Lands and Realty, Livestock Grazing, Recreation and Visitor Services, Travel Management, and Special Designations. Other programs were determined to have little or no impact on non-WSA lands with wilderness characteristics.			
Under Alternative A, management actions would protect, preserve, and maintain the wilderness characteristics on 1,925 acres.	Alternative B management actions would protect, preserve, and maintain the wilderness characteristics on 27,292 acres.	Alternative C management actions would protect, preserve, and maintain the wilderness characteristics on 3,379 acres	Alternative D management actions would protect, preserve, and maintain the wilderness characteristics on 13,653 acres.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Cave and Karsts			
Impacts to cave and karst management would likely result from actions proposed under the following resource programs: Wildlife habitat and Special Status Species, Cave and Karst Resources, Recreation, and Energy and Mineral Resources. Other programs were determined to have little or no impact on cave and karst resources.			
	Cave and Karsts are managed as mandated by the Federal Cave Resources Protection Act as well as other Acts such as the Endangered Species Act. Management actions in the RMP are in conformance with these prescriptions and protect the unique, nonrenewable, and fragile biological, geological, hydrological, cultural, paleontological, scientific, and recreational values. The management actions would result in significant restrictions of casual use of Caves and Karsts but also provide more directed and focused responses due to the mandate for development of a specific Cave and karsts Management Plan.		
Resource Uses			
Energy and Mineral Resources: Solid Leasable Minerals, including Coal			
Implementing management actions under the Alternatives may result in direct impacts that open, limit, or deny access to solid mineral (leasable, locatable, and salable) development in the planning area.			
Coal development could occur under Alternatives A, C, and D. However, under Alternative B, future coal leasing actions would be prohibited. Most of the areas closed to coal development in Alternatives A, C, and D occur in areas where the coal development potential is extremely low, or does not exist.			
Alternative A contains the lowest number of acres unavailable to coal leasing.	Alternative B contains the highest number of acres unavailable to coal leasing.	Alternative C contains more acres unavailable to coal leasing than Alternative A, but less than Alternative B and D.	Alternative D contains more acres unavailable to coal leasing than Alternatives A and C, but less acres than Alternative B.
Energy and Mineral Resources: Fluid Minerals			
	Total Projected New Oil and Gas Wells per year - 2 to 4	Total Projected New Oil and Gas Wells per year – 2 to 4	Total Projected New Oil and Gas Wells per year - 2 to 4
All federal mineral leases would be subject to standard lease terms. The impacts to fluid minerals would vary depending in the number of acres available for leasing with standard lease terms and the number of acres available for leasing with major and moderate constraints.			
Continuation of current management would result in the availability of approximately 633,582 acres for fluid mineral leasing across the entire decision area. Approximately 39,730 acres of BLM subsurface ownership would be unavailable (4.9% of the total BLM oil and gas estate; Table 4-29), including four WSAs: The remainder of federal mineral estate lands would be available for leasing, subject to the stipulations specified in Chapter	Approximately 421,852acres would be available for fluid mineral leasing under Alternative B. Approximately 302,713 acres of BLM-administered federal mineral estate lands would not be available for oil and gas leasing (34.3% of the total BLM oil and gas estate; Table 4-32) including four WSAs: The remainder of federal mineral estate lands in the Planning Area would be available for leasing, subject to the stipulations specified in	Under Alternative C, 65,891 acres of the Decision Area would not be available for oil and gas leasing (5.2% of the total BLM oil and gas estate; Table 4-34) including four WSAs: This includes the Wilderness Study Areas identified in Alternative B plus discretionary no lease areas. The remainder of mineral estate in the Planning Area (610,151 acres) would be available for leasing, subject to the stipulations specified in Chapter 2 or to	Under Alternative D approximately 606,096 acres would be available for fluid mineral leasing. A total of 72,915 acres of federal mineral estate lands would not be available for oil and gas leasing (approximately 7% of the total BLM oil and gas estate) including the Wilderness Study Areas. Effects would be similar to Alternative A with respect to overall acres of BLM administered

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
2 or under Standard Lease Terms. Table 4-30 displays areas affected by no surface occupancy, timing limitations, and controlled surface use oil and gas stipulations.	Chapter 2 or to Standard Lease Terms.	Standard Lease Terms.	land available for leasing and not available for leasing (compare Tables 4-31, 4-34, 4-37, and 4-40). However, Alternative D would apply stipulations to different acres. For example, there are fewer acres of land under No Surface Occupancy and Controlled Surface Use stipulations and a much larger number of acres under Timing Limitations and Standard Lease Terms stipulations under Alternative A, than Alternative D (Tables 4-31, 4-34, 4-37, and 4-40). As a result Alternative D includes more area with No Surface Occupancy and would be more stringent in the application of stipulations for leasing of essentially the same amount of land as Alternative A.
Energy and Mineral Resources: Locatable Minerals			
Implementation of the Alternatives would result in some public lands being opened or withdrawn from locatable mineral entry under the mining laws. Such actions could affect the ability of potential mining claimants and/or exploration and mining companies to explore and develop locatable minerals in the planning area. Management actions that restrict access are long term in nature and the withdrawals are for 20-year periods from the operation of the mining laws, subject to valid existing rights. In these instances, only valid, existing mining claims can be developed. Subject to such valid existing rights, exploration, staking of new mining claims, development, or mining on withdrawn federal mineral estate is prohibited.			
Under the existing Billings Resource Area RMP (BLM, 1984), the entire planning area is open to locatable mineral entry except for 1,855 acres which are currently withdrawn. Areas recommended for withdrawal from locatable mineral entry in the planning area range from 39,700 acres (Alternative A) to 270,977 acres (Alternative B). In cases involving valid mining claims, exploration for locatable minerals would occur under all Alternatives.			
Energy and Mineral Resources: Mineral Materials			
Implementing management actions under the alternatives may result in direct impacts that open, limit or deny access to the disposition of mineral materials from public lands in the planning area. Adverse impacts to mineral materials disposal can result from management actions that restrict or limit disposals of mineral materials, or that place specific stipulations or mitigation requirements on development activity. Beneficial impacts to mineral materials disposal can result from management actions that encourage disposal or opens areas to disposal. Indirect impacts result from actions that place or remove restrictions, or place additional requirements on the exploration and development activities for mineral materials. For example, actions taken to preserve greater sage-grouse habitat could either prevent or constrain the exploration and development of mineral materials.			
Short-term impacts may include such seasonal restrictions to accessing mineral material resources to protect greater sage-grouse, or delays caused by requiring the completion of resource surveys (such as cultural resources) before commencing mining operations. Long-term impacts may include transferring federal mineral estate, including the mineral materials therein, to private ownership, thereby potentially removing the resource from public access.			
Under the existing Billings Resource Area RMP (BLM, 1984), the entire planning area is open for the development of mineral materials except for 44,583 acres which are currently	Areas recommended for closure to mineral materials disposal in the planning area range from 44,583 acres (Alternative A) to 343,745 acres (Alternative B). Although there is a wide variance between Alternatives, the plan would provide land-use opportunities for the development of mineral materials. It would provide economic benefits and meet local infrastructure needs while protecting or minimizing adverse impacts to other		

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
closed to disposal.	resources and their uses.		
Lands and Realty: Land Tenure Adjustment and Access, Rights-of-Way/Leases/Permits, and Withdrawals			
Impacts to land tenure, ROWs/Leases/Permits, and withdrawals would likely result from actions proposed under the following resource programs: Soils, Water, Vegetation, Wildlife Habitat and Special Status Species, Fisheries Habitat and Special Status Species, Cultural Resources, Paleontological Resources, Visual Resources, Wildfire Ecology & Management, Lands with Wilderness Characteristics, Cave and Karst Resources, Energy and Mineral Resources, Lands and Realty, Recreation and Visitor Services, Trails and Travel Management, Renewable Energy, Transportation and Facilities, and Special Designations. Other programs were determined to have little or no impact on lands and realty.			
The designation of ROW avoidance and exclusion areas on BLM lands, along with similar restrictions on ROW development on adjacent lands, would have a cumulative impact of reducing overall routing options for ROW facilities such as utilities and roads. Restrictions on ROWs in the decision area, combined with restrictions form other management plans in the planning area, would have an incremental effect by limiting the location of the ROW. Alternatives B and D have the most avoidance and exclusion areas; and the fewest ROW avoidance and exclusion areas identified in Alternative A.			
Livestock Grazing			
Impacts to livestock grazing would likely result from actions proposed under the following resource management programs: Soil, Water, Vegetation, Wildlife and Fisheries Habitat and Special Status Species, Fire Ecology and Management, Cultural / Paleontological / Historic Resources, Energy and Mineral Development, Lands and Realty, Livestock Grazing, Recreation, Travel Management, and Special Designations. Other programs were determined to have little or no impact on livestock grazing.			
The types of impacts projected to occur to livestock grazing management because of each Alternative are similar and include changes in AUM allocations and rangeland health. The factors causing these impacts primarily include surface-disturbing activities, restrictions protecting resource values, fire and fuels management, invasive species and noxious weeds, and proactive management actions. Changes in AUM allocations and rangeland health, and the associated causative factors of these changes, are described below as impacts common to all Alternatives. How the intensity of these impacts varies by Alternative is described under individual Alternatives.			
Alternative A would maintain the status quo for allotment categorization (I: Improve, M: Maintain and C: Custodial). Under this alternative, allotments with high priority resource issues are categorized as I and receive the highest priority for improvement (mainly staff, planning and funding) and monitoring. As I allotments improve to a level where they are meeting the standards for rangeland health (or making significant progress towards meeting the standards) the category can be lowered to the M category so that staff and funding can be put towards other allotments that require improvement. Category C allotments are typically small (less than 320 acres), isolated and unfenced parcels with little or no management potential (other than	Alternative B re-categorizes all allotments within the PPA boundaries to the I category. Under this alternative, all allotments within the boundary of the PPA would receive priority for protection, maintenance, improvement and monitoring. Impacts to staff and funding levels with creation of the newly re-categorized allotments would be low to moderate and dependent on existing resource conditions and the degree of departure from the standards for rangeland health, if any. Existing I allotments outside PPAs would continue to be treated the same as under Alternative A.	Impacts under Alternative C are the same as Alternative A for both monitoring and allotment categorization.	Alternative D is essentially the same as Alternative B, with the exception that Alternative D includes the continued priority for monitoring of existing allotment management plans that are currently in place.

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
season of use), and are managed under the custodial oversight of the grazing permittee. There are currently 35 I category allotments, 111 M category allotments and 253 C category allotments. Impacts under this alternative would be minimal to staff and funding. The flexibility to change categorization based on improving resource conditions is maximized.			
Recreation and Visitor Services			
Impacts to recreation would likely result from actions proposed under the following resource programs: Air, Vegetation, Wildlife habitat and Special Status Species, Fish Habitat and Special Status Species, Wild Horses and Burros, Cultural Resources, Paleontological Resources, Visual Resources, Wildfire Ecology and Management, Lands with wilderness characteristics, Cave and Karsts Resources, Minerals and Energy, Lands and Realty, Livestock Grazing, Forestry and Woodland Resources, Recreation, Travel Management, Renewable Energy, and Special Designations. Other programs were determined to have little or no impact on recreation.			
Various past, present, and reasonably foreseeable future BLM actions have affected and would continue to affect recreational opportunities within the planning area, including mineral development, wildfire suppression and fuels treatments, OHV travel, utility corridor development, grazing and recreational activities in riparian areas, and management within existing SRMAs and the ERMA. The increase in vehicle-based recreation and urban development and associated population growth all contribute to increased demand for recreational opportunities in the region. As a result, the planning area could experience increased recreational visitors over the life of the plan, which could degrade certain recreational settings, resulting in diminished recreational opportunities and experiences, or increase user conflicts associated with dispersed unconfined recreational opportunities. Similarly, increasing development or utilities within or near the BiFO could degrade certain recreational settings. The increase in recreational activities is minimally a result of BLM actions. There would be a minor incremental impact to recreational opportunities and experiences from the Proposed RMP management actions. The issuance of SRPs would not be affected by the change of management emphasis between Alternatives.			
Trails and Travel Management			
Impacts to travel management would likely result from actions proposed under the following resource programs: Wildlife habitat and Special Status Species, Non-WSA Lands with Wilderness Characteristics, Lands and Realty, Recreation, Travel Management, Renewable Energy, and Special Designations. Other programs were determined to have little or no impact on travel management.			
			The Proposed RMP management actions for closing 99% of the decision area to cross-country OHV travel in combination with similar management actions of adjacent field offices and agencies would incrementally reduce opportunities for cross-country OHV travel.
Areas protected from development have guided in the past, and would continue to guide, the location and development of many highways and roads near and within the BiFO. In contrast, the Proposed RMP and Alternatives B, C, and D management actions restrict travel within the BiFO mostly to designated routes and very few, if any, additional routes would be developed. As a result, there could be increased concentrations of vehicles within certain areas of the BiFO, that is, restricting the miles of roads open for motorized travel would be expected to increase vehicle concentrations more in the BiFO than in surrounding areas that do not impose travel restrictions			

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Renewable Energy			
Impacts to wind energy would likely result from actions/restrictions proposed under the following resource programs: Wild Horse and Burro Management, Wildlife Habitat and Special Status Species, Cultural and Heritage Resources, Renewable Energy, Lands and Realty, Special Designations, and Visual Resource Management. Other programs were determined to have little or no impact on renewable energy.			
Managing 47,496 acres as renewable energy exclusion areas (closed) would remove 11% of BLM-administered land in the planning area from wind development, of which 12,372 acres are high and 6,350 acres are moderate development potential. Table 4-41 shows the impact allocations in this Alternative have on the availability of land for wind energy development. Opportunity for development is provided to the greatest degree by this Alternative, especially on the 50,135 acres of high potential land that would be managed as open (see Map 153) as long as resource issues could be resolved and important values protected with BMPs and standard stipulations.	Managing 345,491 acres as renewable energy exclusion areas (closed) would remove 80% of BLM-administered land in the planning area from wind development, of which 53,537 acres are high and 111,742 acres are moderate in development potential. Table 4-42 shows the impact of allocations in this Alternative on the availability of land for wind energy development. Maximizing restrictions under this Alternative would remove the greatest number of acres exhibiting high wind resources of any Alternative, severely impacting opportunities for development. This would be the most restrictive of any of the Alternatives for wind development with no areas considered "open" (see Map 154). However, exclusion of renewable energy development from Lands with Wilderness Characteristics would affect only low potential wind areas. Should technologies be developed in the future to take advantage of winds in lower potential areas, as well as to better mitigate impacts, this Alternative would have detrimental long-term impacts on industry and renewable energy development in the BiFO.	Managing 82,019 acres as renewable energy exclusion areas (closed) would remove 19% of BLM-administered land in the planning area from wind development, of which 19,960 acres are high and 15,358 acres are moderate in development potential. Table 4-43 shows the impact of allocations in this Alternative on the availability of land for wind energy development. Application of special design features, timing limitations, and other restrictions would increase costs and processing time, and in some instances, result in applications being withdrawn by industry as described under Impacts from Management Common to All Alternatives. Allowing wind energy development in the Pryor Foothills ACEC and in Greater Sage-Grouse PPAs and RAs if sage-grouse habitat suitability would be maintained would potentially increase the amount of acreage available for wind development in comparison to Alternative B, where development in sage grouse areas is excluded. Managing VRM Class III as open rather than as avoidance areas could result in additional development flexibility, though VRM objectives must still be met.	Managing 78,088 acres as renewable energy exclusion areas (closed) would remove 18% of BLM-administered land in the planning area from wind development, of which 17,392 acres are high in development potential. Table 4-44 shows the impact of allocations in this Alternative on the availability of land for wind energy development. Impacts are similar to Alternative C, though different timing limitation and distances would be applied for some resources. Areas such as the Pryor Foothills ACEC and slopes over 30% would be managed for avoidance rather than exclusion, which provides additional flexibility for development on about 2,500 additional high wind potential acres. Under Alternative D, the 20,937 acres of open BLM-administered land, including 751 acres with High wind potential and 10,595 acres with Moderate wind potential would provide opportunities similar to Alternative C for generation of renewable energy to meet agency goals and potentially assist in reducing reliance on other energy sources and in turn, reduce emissions from other generating sources.
Special Designations			
Pompeys Pillar National Monument and ACEC			

Table 2-7 Summary of Environmental Consequences by Alternative

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Under all Alternatives, Pompeys Pillar ACEC (432 acres) would continue to be managed to protect the historical, cultural, and biological values, including its outstanding viewsheds and unique resources of the area. Emphasis on providing opportunities for interpretation, education and enjoyment of the area would continue.			
The ACEC would be available for oil and gas leasing, subject to a No Surface Occupancy (NSO) stipulation. The 432 acres within the ACEC have low mineral development potential; therefore, while the NSO stipulation protects the values of concern within the ACEC, there would be minimal adverse impacts to oil and gas leasing. Pompeys Pillar National Monument (51 acres) which is included in a portion of the ACEC, would be managed to protect the historical and cultural objects for which is was nominated, and would be withdrawn from all forms of entry, location, selection, sale or disposition, subject to valid existing rights.			
The National Historic Landmark (NHL 6 acres) which includes the rock feature itself, would be managed as a VRM Class II to protect the values associated with the landform. The remainder of the ACEC would be managed as VRM Class III. This would allow for interpretive and educational programming, facilities and access to and within the site, while ensuring the visual quality and visual obtrusions are minimized or mitigated to protect the scenic values of the area.			
Areas of Critical Environmental Concern			
Nine ACECs would be retained for a total of 37,896 acres. Wind Energy development could occur in ACECs under this alternative. Target shooting is allowed in the cultural ACECs.	Nine ACECs would be retained and three ACECs proposed for a total of 181,175 acres. Under this action alternative the management of the ACECs is the most restrictive.	Nine ACECs would be retained and two ACECs proposed for a total of 67,079 acres. Under this alternative the management of the ACECs is the least restrictive.	Nine ACECs would be retained and two ACECs proposed for a total of 38,786 acres. Under this alternative, the total acreage for all 11 ACECs is between Alternatives B and C and the management is appropriate to protect the values of each ACEC.

Notes:
Based upon the programmatic and strategic nature of the RMP alternatives, this table reflects the potential for environmental consequences.
Closed to leasing means deferred for the life of the plan.
1 These impacts are anticipated to occur outside of the planning area

ACEC	Area of Critical Environmental Concern	AUM	animal unit month
BLM	Bureau of Land Management	MAAQS	Montana Ambient Air Quality Standards
N/A	not applicable	NAAQS	National Ambient Air Quality Standards
NHT	National Historic Trail	OHV	off-highway vehicle
ROW	Right-of-Way	SRMA	Special Recreation Management Area
TMA	Travel Management Area	VRM	Visual Resource Management
WH/B	Wild Horses and Burros	WSA	Wilderness Study Area
WSR	Wild and Scenic River		

Table 2-8 Summary Comparison of Impacts

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Social			
Continuation of current management would maintain the quality of life of permittees, those who favor resource use including some residents of small communities. Those who favor resource protection would not feel resources such as wildlife and plant habitat would receive adequate protection. Issue between motorized and non-motorized recreation would not be addressed.	Alternative B would enhance the quality of life of those who favor resource protection and non-motorized recreation use. Those who favor resource use including some residents of small communities may feel that their interests are not adequately protected. Some of the issues between motorized and non-motorized use would be addressed but at the expense of motorized users.	Alterative C would maintain or enhance the quality of life of permittees, those who favor resource use and residents of small communities. Those who favor resource protection would not feel resources such as wildlife and plant habitat would receive adequate protection. Some of the issues between motorized and non-motorized use would be addressed but at the expense of non-motorized users.	Alternative D offers a balance between resource use and resource protection which would meet many of the needs of the groups and individuals interested in public lands. Both motorized and non-motorized recreation use would be enhanced and many of the issues that currently exist on these public lands would be addressed.
Economics			
Agricultural and Livestock Use (Common)			
BLM would continue to provide about 1 % of the total livestock forage needs in the local economy where economic dependency of livestock producers on BLM forage would remain unchanged. About 310 operators would continue to have grazing leases. The amount of authorized use would remain unchanged; dependency on BLM forage would remain relatively unchanged; and BLM forage would continue to provide a critical element of some livestock producers' complement of grazing, forage, and hay production. An annual average of 42,931 AUMs of authorized livestock grazing would support approximately 75 total full and part-time jobs and $935,000 in labor and proprietor's income. Annual federal revenues from livestock grazing fees would be about $58,000 annually, of which about $10,000 would be distributed to the counties.			
Minerals Development (common)			
Most of the oil and gas activity and production would continue to occur in Carbon County. An estimated 264,000 short tons of bentonite, 100 tons of building stone, and 6,500 tons of mineral materials would be produced from federal minerals annually. Over a 13-year period, rent would be paid on an estimated 2,680 acres of federal coal that would be leased. Annual federal coal production would average 2.8 million tons.			
Minerals Development			
An estimated 247,805 acres of federal minerals would be leased for oil/gas exploration, development, and production. Average annual production of 236,700 MCF of natural gas, 459,200 bbl of oil, 2.8 million tons of coal, 264,000 short tons of bentonite, 100 tons of building stone, and 6,500 tons of mineral materials would support about 110 local jobs and $6.5 million in wage and proprietors' income. Total annual federal revenues from leases, rents, production royalties, and sales would be about $9.3 million; of which about $3.6	An estimated 178,560 acres of federal minerals would be leased for oil/gas exploration, development, and production. Average annual production of 170,500 MCF of natural gas, 330,900 bbl of oil, 2.8 million tons of coal, 264,000 short tons of bentonite, 100 tons of building stone, and 6,500 tons of mineral materials would support about 100 local jobs and $5.9 million in wage and proprietors' income. Total annual federal revenues from leases, rents, production royalties, and sales would be about $7.6 million; of which about $3.3 million would be	An estimated 248,033 acres of federal minerals would be leased for oil/gas exploration, development, and production. Average annual production of 236,900 MCF of natural gas, 459,700 bbl of oil, 2.8 million tons of coal, 264,000 short tons of bentonite, 100 tons of building stone, and 6,500 tons of mineral materials would support about 110 local jobs and $6.5 million in wage and proprietors' income. Total annual federal revenues from leases, rents, production royalties, and sales would be about $9.4 million; of which about $3.6 million would be	An estimated 246,910 acres of federal minerals would be leased for oil/gas exploration, development, and production. Average annual production of 235,800 MCF of natural gas, 457,600 bbl of oil, 2.8 million tons of coal, 264,000 short tons of bentonite, 110 tons of building stone, and 6,500 tons of mineral materials would support about 100 local jobs and $6.5 million in wage and proprietors' income. Total annual federal revenues from leases, rents, production royalties, and sales would be about $9.3 million; of which about $3.6 million would be distributed to the counties

Table 2-8 Summary Comparison of Impacts

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
million would be distributed to the counties of production.	distributed to the counties of production.	distributed to the counties of production.	of production.
Recreation (common)			
An annual average of 261,000 recreation visits would support about 125 full and part time jobs and $3.4 million in labor income. The willingness to pay for recreation opportunities would represent an estimated annual consumer surplus of $13.1 million to the recreation visitors. Annual revenues from recreation use permits, campground receipts, and outfitter/guide receipts would be about $47,000. None of these revenues would be distributed to the local counties.			
Timber			
Harvesting an estimated average 160 CCF of sawtimber, 131 CCF of pulp wood, 2 CCF of post and poles, 960 CCF of biomass, 1 CCF of fuelwood, and 1,102 lbs of juniper would support one local job and about $20,000 in local income. Timber management would generate about $7,000 in federal revenues and less than $300 in state revenue.	Same as Alternative A.	Harvesting an estimated average 570 CCF of sawtimber, 131 CCF of pulp wood, 2 CCF of post and poles, 960 CCF of biomass, 1 CCF of fuelwood, and 1,102 lbs of juniper would support one or two local jobs and about $50,000 in local income. Timber management would generate about $22,000 in federal revenues and less than $900 in state revenue.	Harvesting an estimated average 285 CCF of sawtimber, 131 CCF of pulp wood, 2 CCF of post and poles, 960 CCF of biomass, 1 CCF of fuelwood, and 1,102 lbs of juniper would support one local job and about $30,000 in local income. Timber management would generate about $11,000 in federal revenues and less than $500 in state revenue.
Lands and Realty (Common)			
Existing use authorizations (e.g. rights-of-way, permits, and lease rentals) would continue to generate an estimated annual average $22,000 of revenue to the federal government. The development of renewable wind energy on public lands would stimulate economic activity from the construction and operation of the towers and related infrastructure. After construction, annual employment and income contributions associated with maintenance and operation of wind energy developments would be about 20 jobs and $600,000 respectively. Wind energy development would generate an additional $270,000 annually in federal revenues. None of the rights-of-way rents would be disbursed to state or local governments.			
Payments to Counties (Common)			
Payments in Lieu of Taxes (PILT) from the federal government to 8 counties would continue to be approximately $620,000. A portion of coal lease bonuses, rent, and royalty payments to Musselshell county would average $2.3 million per year over a 13-year period. An estimated $308,700 from the MT Bentonite Production Tax would be distributed to Carbon County. An annual average of $30,000 would be distributed to counties from the BLM budget under partnership agreements to treat weeds. An estimated average of $224,000 would be provided to local governments and entities through community assistance agreements to reduce the risk of wildland fire to communities.			
Payments to Counties			
Including payments listed above, total revenues disbursed to the 8 Montana counties would average about $4.5 million per year. This would contribute about 75 jobs and $3.2 million of income annually to the local economy.	Including payments listed above, total revenues disbursed to the 8 Montana counties would average about $4.2 million per year. This would contribute about 70 jobs and $3.0 million of income annually to the local economy.	Including payments listed above, total revenues disbursed to the 8 Montana counties would average about $4.5 million per year. This would contribute about 75 jobs and $3.2 million of income annually to the local economy.	Including payments listed above, total revenues disbursed to the 8 Montana counties would average about $4.5 million per year. This would contribute about 75 jobs and $3.2 million income annually to the local economy.

Table 2-8 Summary Comparison of Impacts

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Government (Common)			
Average annual BLM labor and non-labor expenditures ($6.4 million) would support an estimated 90 full and part time jobs and about $6.2 million in wage and proprietor's income. The influence of BLM labor and operations contributions would be most apparent in Billings (Yellowstone County) where the BLM Field Office is located. Employment and income effects of mechanical treatments, prescribed burning, invasive species treatments, and timber management (fuels treatments) would be included in government operations. Treating hazardous fuels would tend to reduce the threat to life and property nearby.			
Combined Effects			
The combined effect of Alternative A would contribute an average annual 492 local full and part-time jobs and $20.78 million in wage and proprietors' income. This would be less than 0.3% of current local employment and income. Annual revenues to the federal government would be about $9.7 million; payments to counties would be about $4.49 million, most of which would be related to mineral leasing, rents, and production royalties. Local employment would increase by about 82 jobs; income would increase by about $3.82 million; federal revenues would increase by about $8.41 million; and local revenues would increase by about $2.71 million compared to current average annual levels. The local population would increase by an estimated 124 people and the number of households would increase by an estimated 49. Population and households would increase by approximately 0.05% relative to current levels.	The combined effect of Alternative B would contribute an average annual 477 local full and part-time jobs and $19.94 million in wage and proprietors' income. This would be less than 0.3% of current local employment and income. Annual revenues to the federal government would be about $8.0 million; payments to counties would be about $4.21 million, most of which would be related to mineral leasing, rents, and production royalties. Local employment would increase by about 67 jobs; income would increase by about $2.98 million; federal revenues would increase by about $6.66 million; and local revenues would increase by about $2.43 million compared to current average annual levels. The local population would increase by an estimated 101 people and the number of households would increase by an estimated 41. Population and households would increase by approximately 0.05% relative to current levels.	The combined effect of Alternative C would contribute an average annual 493 local full and part-time jobs and $20.81 million in wage and proprietors' income. This would be less than 0.3% of current local employment and income. Annual revenues to the federal government would be about $9.8 million; payments to counties would be about $4.50 million, most of which would be related to mineral leasing, rents, and production royalties. Local employment would increase by about 83 jobs; income would increase by about $3.85 million; federal revenues would increase by about $8.48 million; and local revenues would increase by about $2.72 million compared to current average annual levels. The local population would increase by an estimated 125 people and the number of households would increase by an estimated 50. Population and households would increase by approximately 0.05% relative to current levels.	The combined effect of Alternative D would contribute an average annual 493 local full and part-time jobs and $20.77 million in wage and proprietors' income. This would be less than 0.3% of current local employment and income. Annual revenues to the federal government would be about $9.7 million; payments to counties would be about $4.49 million, most of which would be related to mineral leasing, rents, and production royalties. Local employment would increase by about 83 jobs; income would increase by about $3.81 million; federal revenues would increase by about $8.40 million; and local revenues would increase by about $2.70 million compared to current average annual levels. The local population would increase by an estimated 125 people and the number of households would increase by an estimated 50. Population and households would increase by approximately 0.05% relative to current levels.
Other Combined Effects (Common)			
The employment, income, and revenue effects of BLM resource management would be spread unequally among the counties and communities within the Planning Area and the 10 counties that make up the local economy. Most of BLM land and minerals base and land/mineral uses are in Carbon and Musselshell counties. Much of the economic impacts would also occur in those counties. The influence of resource management on BLM-administered lands would not change local economic diversity (as indicated by the number of economic sectors), dependency (i.e. where one or a few industries dominate the economy), or stability (as indicated by seasonal unemployment, sporadic population changes, and fluctuating income rates). The population density and average income per household would continue to be about the same as current levels.			

Table 2-8 Summary Comparison of Impacts

Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D (Preferred Alternative)
Soil and Water (Common)			
Economic benefits or costs from soil and water management (e.g., change in life of dams and reservoirs, change in quantity and quality of water that would change the cost of water for agricultural, industrial, municipal, recreational purposes, and change in soil productivity) associated with resource uses are unknown.			
Cumulative Effects (Common)			
The demographic and economic trends that are described in Chapter 3 to provide context for impacts would be expected to continue. The description of the Affected Environment found in Chapter 3 summarizes the past and present activities that influenced cumulative economic conditions. The economic impacts summarized above for each alternative would be combined with those demographic and economic trends to provide an idea of the cumulative economic effects. In addition, construction of wind energy developments with towers on BLM lands would be anticipated.			

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