

## **PURPOSE**

This Judith-Valley-Phillips Resource Management Plan addresses future management options for approximately 2.8 million BLM surface acres and 3.4 million acres of federal mineral estate administered by the Bureau of Land Management. These lands are managed through the Judith, Valley and Phillips Resource Areas in the BLM Lewistown District in northcentral Montana.

## **PLANNING ISSUES**

Nine issues were identified through public participation, resource monitoring and policy mandates during the scoping process. These issues reflect concerns or conflicts which could be partially or totally resolved through this RMP/EIS.

### **Land Acquisition and Disposal**

Some lands in the planning area could provide access to BLM land or contain riparian and wetland values, wildlife habitat, cultural resources or other significant values. There is growing public interest in acquiring such resources or values and holding them in public ownership.

Some BLM lands meet disposal criteria and do not contain significant resource values and could facilitate acquisitions to consolidate land holdings for BLM and other federal agencies and transfer land to private use and production.

### **Access to BLM Land**

Legal public access is the public's ability to get to BLM land. From a management standpoint, access can be critical to protecting resource values from misuse or overuse, or in providing a more complete use of a resource. From a public standpoint, access to public land has become an issue of national significance. The need for legal public access to BLM land is increasing, requiring that most BLM land be made accessible.

### **Off-Road Vehicle Designations**

Current BLM off-road vehicle (ORV) designations identify areas as open, limited or closed to ORVs. In recent years,

managing ORV use has become entwined with other BLM land uses such as access and recreation in portions of the planning area. Public interest and expectations require that BLM analyze different combinations of these ORV designations as a means of reducing resource damage and user conflicts while still allowing use where appropriate.

### **Oil and Gas Leasing and Development**

BLM anticipates continued oil and gas exploration and development on BLM land and is responsible for oil and gas leasing on BLM-administered subsurface, regardless of surface ownership. BLM will evaluate the types of stipulations needed on oil and gas leases to protect other resources.

### **Hardrock Mining**

BLM is expecting increased locatable mineral activity on BLM land, especially in historically active areas such as the Moccasin, Judith and Little Rocky Mountains. BLM is also expecting increased public interest concerning this type of development in central Montana. BLM guidance requires that mining operations include adequate and responsible measures to prevent unnecessary or undue degradation of federal lands and to provide for reasonable reclamation.

### **Riparian and Wetland Management of Watersheds**

Increased public interest about the quality of riparian and wetland areas requires evaluating conditions, trends and management techniques for these resources. BLM's goal is to restore and maintain riparian-wetland areas so that 75% or more are in proper functioning condition by 1997 (BLM Riparian-Wetland Initiative for the 1990's). Improving or maintaining riparian-wetland areas on BLM land to proper functioning condition and the desired plant community would decrease sedimentation while increasing stream bank stability, vegetation production, wildlife habitat, waterfowl production, recreation opportunities and maintaining or improving water quality. These potentials are becoming more important to the general public, private landowners and land managers.

## **Elk and Bighorn Sheep Habitat Management**

BLM land is capable of supporting expanded elk and bighorn sheep populations. Increased populations could increase hunting opportunities, but could also increase the potential for elk depredation and landowner conflicts on adjacent private land. This issue is complicated because the Montana Department of Fish, Wildlife and Parks manages wildlife populations while BLM manages wildlife habitat on BLM land.

## **Prairie Dogs and Black-Footed Ferret Management**

BLM is required by the Endangered Species Act of 1973, as amended, to carry out programs for the conservation of threatened and endangered species. A block of land of mixed ownership (BLM, Charles M. Russell National Wildlife Refuge, Montana Department of State Lands, and private) in the Phillips RA supports prairie dog populations and habitat suitable for the endangered black-footed ferret and is key to the recovery of the black-footed ferret in the United States.

The issue is complicated by concerns about prairie dog expansion; habitat needs for species associated with prairie dog towns; and concerns by grazing permittees, prairie dog shooters and local business operators that their interests are threatened.

## **Areas with Special Management Concerns**

The RMP/EIS evaluated the eligibility of rivers and streams within the planning area for further study as potential components of the National Wild and Scenic Rivers System.

Some BLM lands possess special values and may need management emphasis to protect or preserve those values. These areas have scenic values, rare plant communities, cultural sites, rare geologic features, threatened or endangered species habitat, cave resources or archaeological resources that qualify them for study as potential areas of critical environmental concern.

## **THE ALTERNATIVES**

The formulation and analysis of alternatives is required by the Council of Environmental Quality regulations for implementing the National Environmental Policy Act (40 CFR 1500.2(e)) and BLM resource planning regulations (43 CFR 1610.4-5). The goal of each alternative is to resolve the issues. Each alternative, in conjunction with the

Management Common To All Alternatives guidance presents a complete and reasonable guide to future management of BLM land and resources. Current management of non-issue resources and programs will continue under each alternative considered and is described in the Management Common To All Alternatives portion of Chapter 2.

Several alternatives were considered during the formulation process but were dropped from detailed study because they were unreasonable or did not adequately address the planning issues.

Five alternatives were developed and analyzed in detail. The major management actions and environmental consequences of the five alternatives analyzed in detail are shown in Tables S.1 and S.2. Alternative E, as modified by public comments on the draft RMP/EIS, has been selected as the proposed Resource Management Plan.

## **ALTERNATIVE E (THE PREFERRED ALTERNATIVE)**

### **Land Acquisition and Disposal**

BLM would pursue acquisitions as opportunities arise through exchange or purchase with willing proponents and/or sellers. BLM recognizes and respects private property rights and would not use condemnation to implement land tenure adjustment under this land use plan. The main objective would be to attain a BLM land pattern which balances multiple resource values and brings about better manageability.

A total of 161,968 acres of BLM land would be available for disposal. The lands identified for disposal would be available for exchange or these lands may also be available for sale to facilitate an individual land exchange or meet other plan objectives.

During any purchase or exchange action, BLM would attempt to maintain the respective county tax base and allow no overall net gain in BLM land over the life of this plan. BLM would monitor land tenure adjustments to identify potential problems in achieving this objective. Sale of BLM land may occur to help facilitate a purchase or exchange action or maintain the respective county tax base.

### **Access to BLM Land**

BLM has identified 71,793 BLM acres as needing new legal public access and 1,126,858 BLM acres as needing additional access. Access would be pursued utilizing existing laws, regulations and guidelines. During activity planning and/

or route analysis, access may be defined as foot, horse, or vehicular. Access would be confined to as narrow a corridor as is necessary to serve such purpose.

BLM would support the public road network, primarily county roads, leading to BLM land by establishing limited cooperative agreements for maintenance with the respective counties.

## **Off-Road Vehicle Designations**

BLM would designate 1,990,441 BLM acres open to off-road vehicles to provide for cross-county travel; designate 813,769 BLM acres limited to protect the resource values in ACECs and WSAs, protect vegetation and soils to maintain watersheds and water quality, reduce user conflicts, and provide habitat security; and close 1,947 BLM acres to protect the resource values in the Square Butte ONA ACEC.

The following exceptions would apply to the limited designations, except in the WSAs and ACECs:

1. Vehicle access for camping would be permissible within 100 yards of designated roads and trails. Exceptions could be granted on a case-by-case basis through the use of a special use permit.
2. The non-ambulatory handicapped, as defined by Montana Law, would be allowed motorized access off designated roads and trails.
3. Snowmobiles would be allowed off-road travel on BLM land in the Little Belt and Snowy Mountains.
4. Off-road vehicle use would be allowed for game retrieval. In some areas, retrieval may be limited to a specified time period.

BLM would pursue cooperative agreements with state and local law enforcement agencies and use BLM law enforcement rangers to monitor and implement restrictions.

Off-road travel for administration of a federal lease or permit, unless specifically prohibited, is granted.

## **Oil and Gas Leasing and Development**

BLM would provide for oil and gas exploration and development, while protecting other resource values through: standard lease terms; stipulations on 1,760,426 BLM acres; No Surface Occupancy restrictions on 34,818 BLM acres; and closing WSAs and the Azure Cave ACEC (117,962 BLM acres).

Exploration and development of current leases would be governed by their respective stipulations, until these leases expire. As current leases expire, the areas would come under the management guidelines of this document.

## **Hardrock Mining**

BLM would provide for hardrock mineral development, while protecting other resources of exceptional value through withdrawal from mineral entry or with special management prescriptions. BLM would segregate 4,647 BLM acres from mineral entry including; 100 acres high, 100 acres moderate, 60 acres low and 4,387 acres very low mineral development potential.

BLM would recommend revoking the withdrawals for the Judith Peak and Red Mountain Radar Sites, the Landusky Town Site, Landusky Recreation Site and the Zortman Town Site. BLM would continue the Blacktail Fossil Site, Azure Cave, Camp Creek Campground and Montana Gulch Campground withdrawals.

BLM would pursue protective withdrawals for the Big Bend of the Milk River ACEC to protect the area from any possible bentonite mining; the Square Butte ONA to segregate the area from locatable mineral entry to protect natural endemic systems, cultural sites, scenic qualities and rare geologic features unique to Montana; and the Zortman Cemetery.

To ensure orderly development of mineral resources while protecting other resource values, management prescriptions would be applied to Plans of Operation in the Judith Mountains Scenic Area ACEC, elk habitat in the Judith and North Moccasin Mountains and bighorn sheep habitat in the Little Rocky Mountains. Mitigating measures would be applied to all Plans of Operation to prevent unnecessary or undue degradation.

## **Riparian and Wetland Management of Watersheds**

BLM would maintain and/or improve the riparian-wetland areas in 348 allotments with 595 BLM stream miles and 5,850 BLM water sources based on proper functioning condition and the desired plant community.

BLM would initially accomplish riparian-wetland objectives through livestock grazing methods at current stocking levels. If grazing methods are not successful in meeting management objectives, BLM would take the necessary action to achieve those objectives. When the trend in riparian and wetland conditions is improving, the prescribed grazing method should be continued even if the riparian-wetland objectives are not achieved in the stated time frame.

To accomplish the above riparian-wetland objectives BLM would consider the importance of the intermingled private lands, including valuable riparian-wetland areas, which could be adversely impacted as a result of management changes on BLM land.

### **Elk and Bighorn Sheep Habitat Management**

BLM would provide 593,980 acres of habitat for elk on BLM land in the Missouri Breaks, Highwood Mountains, Square Butte, Little Belt Mountains, Judith Mountains, and Little and Big Snowy Mountains.

BLM would also provide 156,930 acres of habitat to maintain and expand bighorn sheep on BLM land in the planning area.

BLM would plant lure crops on BLM land where determined to be necessary and feasible to draw elk from private crop land where depredation conflicts are occurring. Planting lure crops would be considered for small areas and management to protect lure crops could include fencing, grazing methods, or a change in season of use for livestock. Planting and maintenance of lure crops would be most feasible under a cooperative arrangement with MDFWP, other organizations or individuals.

### **Prairie Dog and Black-Footed Ferret Management**

BLM would provide prairie dog habitat for black-footed ferret reintroduction and long-term ferret recovery, associate species (mountain plover, burrowing owl, and ferruginous hawk), recreational viewing, and prairie dog shooting. Prairie dog towns on BLM land identified for reintroduction of the black-footed ferret would be designated an ACEC (12,346 acres). This habitat may also help prevent the listing of the mountain plover, burrowing owl and ferruginous hawk as threatened or endangered. If one of these species would become listed, BLM would consult with the FWS to assure this RMP meets the habitat needs. If this plan would not meet those needs, BLM would amend this RMP.

BLM, in cooperation with the FWS and MDFWP, would maintain the existing prairie dog habitat and distribution on BLM land within the 7km Complex based on a 1988 survey. BLM would also support cooperative agreements for prairie dog towns on CMR, DSL, and private land within the 7km Complex. The 7km Complex contains approximately 26,000 acres of prairie dog towns (12,346 BLM acres, 5,800 CMR acres, 2,012 DSL acres and 5,821 private acres) as shown on Map 7 in the back of this document. Management

actions would be directed to cooperatively maintain this amount of prairie dog habitat.

### **Judith Mountains Scenic Area ACEC**

BLM would designate 3,702 BLM acres an ACEC to protect the scenic, wildlife and recreation values in the Judith Mountains. Designation of an ACEC only applies to public lands administered by BLM. This area would be managed to mitigate impacts to resources from surface disturbing activities.

BLM would implement the following management actions: off-road travel would be restricted yearlong to designated roads and trails; the ACEC would be an avoidance area for ROWs; oil and gas leases would contain a controlled surface use stipulation for visual resources; the area would be available for restricted management of forest products; and the area would remain open to mineral entry.

### **Acid Shale-Pine Forest ACEC**

BLM would designate two representative BLM tracts, War Horse (817 acres) and Briggs Coulee (1,646 acres), within an Acid Shale-Pine Forest ecosystem a Research Natural Area ACEC to protect an endemic plant community unique to the area and a fragile watershed. Designation of an ACEC only applies to public lands administered by BLM. The ACEC would be a Research Natural Area where research would be allowed to determine the effects of grazing, fire, etc. on this type of plant community. BLM would allow research at War Horse and maintain Briggs Coulee as a control site.

BLM would implement the following management actions: disposal of forest products from the area would be prohibited unless necessary for stand preservation; the area would receive intensive wildfire suppression; ORV use would be restricted yearlong to designated roads and trails; the ACEC would be leased for oil and gas with standard lease terms; and the ACEC would remain open to mineral entry.

### **Square Butte Outstanding Natural Area ACEC**

BLM would designate 1,947 BLM acres an ACEC to protect natural endemic systems, cultural sites, scenic qualities, rare geologic features unique to Montana and identify key wildlife viewing sites under the Watchable Wildlife Program. Designation of an ACEC only applies to public lands administered by BLM. This area would be managed primarily for wildlife, cultural resources and recreation.

BLM would implement the following management actions: pursue a protective withdrawal for Square Butte to segregate the area from mining claim location; a 1/4-mile perimeter at the outer edge of the Butte would be available for oil and gas leasing with No Surface Occupancy restrictions if Congress does not designate Square Butte as wilderness; legal access would be pursued to the ACEC; the area would be closed to ORVs; surface disturbing activities would be prohibited including transmission lines, roads, communication sites, pipelines, etc.; recreation and habitat management plans for the area would include a trail system, camping areas, a recreation use policy and habitat management direction for wildlife populations including prescribed fire, security areas, etc.; and the sale of forest products would be prohibited, unless necessary for stand preservation.

### **Collar Gulch ACEC**

This area would not be designated an ACEC, the area would be open to mineral entry and current management practices would continue. Current management would include the evaluation of alternate mine operating practices and mitigating measures during technical review and environmental analysis of individual Plans of Operations. The Montana Water Quality Act imposes a nondegradation policy for Collar Gulch Creek.

### **Azure Cave ACEC**

BLM would designate 140 BLM acres an ACEC to protect cave resources and potentially the northernmost bat hibernaculum in the United States. Designation of an ACEC only applies to public lands administered by BLM.

The cave would be managed to protect bats during crucial hibernation periods and allow specific and general recreation use on a limited basis.

BLM would implement the following management actions: prepare an activity plan to determine time periods for cave access and initiate appropriate management activities to protect the bats; continue the withdrawal from mining claim location; the area would be closed to oil and gas leasing; additional legal access would be pursued but limited to an unimproved road; and ORVs would be restricted yearlong to designated roads and trails.

### **Big Bend of the Milk River ACEC**

BLM would designate 2,120 BLM acres within the Big Bend of the Milk River area, which includes the Henry Smith and Beaucoup Sites, an ACEC to manage archaeological resources representing bison hunting and prehistoric ceremonial use of the Northwestern Plains. The Henry Smith Site would be managed for interpretation and the Beaucoup Site for research. Designation of an ACEC only applies to public lands administered by BLM.

BLM would implement the following management actions: consult with appropriate Native Americans to ensure that an activity plan is developed with sensitivity to Native American cultural values; ORVs would be restricted yearlong to designated roads and trails; the area would be withdrawn from mineral location and withheld from solid mineral leaseables; the Henry Smith Site would be open to oil and gas leasing with No Surface Occupancy restrictions and the Beaucoup Site would be open to oil and gas leasing with standard lease terms.

**TABLE S.1  
SUMMARY OF ALTERNATIVES**

**LAND ACQUISITION AND DISPOSAL**

<u>ALTERNATIVE A (CURRENT)</u>	<u>ALTERNATIVE B</u>	<u>ALTERNATIVE C</u>	<u>ALTERNATIVE D</u>	<u>ALTERNATIVE E (PREFERRED)</u>
BLM would pursue acquisitions as opportunities arise through exchange or purchase with willing proponents and/or sellers. BLM recognizes and respects private property rights and would not use condemnation to implement land tenure adjustment. The main objectives would be to attain a BLM land pattern which balances multiple resource values and brings about better manageability.	BLM would pursue acquisitions as opportunities arise through exchange or purchase with willing proponents and/or sellers. BLM recognizes and respects private property rights and would not use condemnation to implement land tenure adjustment. The main objectives would be to attain a BLM land pattern which balances multiple resource values and brings about better manageability.	BLM would pursue acquisitions as opportunities arise through exchange or purchase with willing proponents and/or sellers. BLM recognizes and respects private property rights and would not use condemnation to implement land tenure adjustment. The main objectives would be to attain a BLM land pattern which balances multiple resource values and brings about better manageability.	BLM would pursue acquisitions as opportunities arise through exchange or purchase with willing proponents and/or sellers. BLM recognizes and respects private property rights and would not use condemnation to implement land tenure adjustment. The main objectives would be to attain a BLM land pattern which balances multiple resource values and brings about better manageability.	BLM would pursue acquisitions as opportunities arise through exchange or purchase with willing proponents and/or sellers. BLM recognizes and respects private property rights and would not use condemnation to implement land tenure adjustment. The main objectives would be to attain a BLM land pattern which balances multiple resource values and brings about better manageability.
BLM land identified for disposal would total 166,021 acres.	BLM land identified for disposal would total 166,021 acres.	BLM land identified for disposal would total 166,021 acres.	BLM land identified for disposal would total 166,021 acres.	BLM land identified for disposal would total 161,968 acres.

**ACCESS TO BLM LAND**

<u>ALTERNATIVE A (CURRENT)</u>	<u>ALTERNATIVE B</u>	<u>ALTERNATIVE C</u>	<u>ALTERNATIVE D</u>	<u>ALTERNATIVE E (PREFERRED)</u>
BLM would pursue access in the public interest while properly managing access within the Bureau's multiple-use mandate. Access would be sought for administrative purposes, for authorized users and for the general public.	BLM would not pursue new or additional access to BLM land, but would maintain existing access. BLM would support the public road network, primarily county roads, leading to BLM land by establishing limited cooperative agreements for maintenance with the respective counties.	Access would be pursued to BLM land where no legal public access exists. Access would provide improved land management and use by the public. BLM has identified 71,793 acres needing new legal public access.	Access would be pursued to BLM land where no legal public access exists and/or where additional access to BLM land is needed. Access would provide for improved land management and use by the public. BLM has identified 71,793 acres needing new legal public access and 1,126,858 acres needing additional access.	Access would be pursued to BLM land where no legal public access exists and/or where additional access to BLM land is needed. Access would provide for improved land management and use by the public. BLM has identified 71,793 acres needing new legal public access and 1,126,858 acres needing additional access.

## OFF-ROAD VEHICLES

ALTERNATIVE A (CURRENT)  
BLM would restrict ORV use yearlong (428,770 acres) or close specific areas (1,947 acres) to protect resource values, wilderness values in the WSAs, vegetative cover and fragile soils.

Other BLM land (2,375,440 acres) would remain open to ORV use to provide cross-country travel.

ALTERNATIVE B  
BLM would maximize opportunities for ORV use to provide unrestricted cross-country travel and ORV recreation. ORV use in the WSAs would be restricted yearlong (116,640 acres). The Square Butte ONA (1,947 acres) would be closed to all motorized vehicle travel.

Other BLM land (2,687,570 acres) would remain open to ORV use to provide cross-country travel.

ALTERNATIVE C  
BLM would restrict ORV use yearlong (121,206 acres) and seasonally (862,709 acres) or close specific areas (3,805 acres) to reduce user conflicts, provide watershed and vegetative cover, reduce harassment of wildlife and provide habitat security, protect the resource values in ACECs, protect habitat on core towns for potential black-footed ferret reintroduction and protect wilderness values in the WSAs.

Other BLM land (1,818,437 acres) would remain open to ORV use to provide for cross-country travel including a designated intensive ORV use area (40 acres) for competitive events such as races and rallies.

ALTERNATIVE D  
BLM would restrict ORV use yearlong (657,667 acres) and seasonally (2,127,480 acres) or close specific areas (20,970 acres) to protect the resource values in ACECs, protect wilderness values in the WSAs, protect vegetative cover to maintain watersheds and water quality, reduce user conflicts, reduce harassment of wildlife and provide habitat security, and protect habitat on primary and secondary prairie dog towns for potential black-footed ferret reintroduction.

BLM would provide an intensive ORV use (40 acres) for competitive events such as races and rallies.

ALTERNATIVE E (PREFERRED)  
BLM would restrict ORV use yearlong (157,473 acres) and seasonally (656,296 acres) or close specific areas (1,947 acres) to protect the resource values in ACECs, protect wilderness values in the WSAs, protect vegetation and soils to maintain watersheds and water quality, reduce user conflicts, and reduce harassment of wildlife and provide habitat security.

Other BLM land (1,990,441 acres) would remain open to ORV use to provide for cross-country travel including a designated intensive ORV use area (40 acres) for competitive events such as races and rallies.

Exceptions would apply to limited designations for camping, non-ambulatory handicapped, snowmobiles and game retrieval.

## OIL AND GAS LEASING AND DEVELOPMENT

ALTERNATIVE A (CURRENT)  
BLM would protect surface resource values on lands open to oil and gas leasing. Land available for oil and gas leasing would be subject to standard stipulations (3,231,201 acres), special stipulations (874 acres), No Surface Occupancy restrictions (17,810 acres) or closed to oil and gas leasing (137,802 acres).

ALTERNATIVE B  
BLM would provide the maximum oil and gas exploration and development opportunities by leasing land with minimum lease stipulations. BLM land would be open to oil and gas leasing with standard terms only (3,269,725 acres). WSAs would remain closed to oil and gas leasing (117,962 acres).

ALTERNATIVE C  
BLM would provide for oil and gas exploration and development, while protecting other resource values. Land available for oil and gas leasing would be subject to standard terms only (3,231,201 acres), stipulations (874 acres), No Surface Occupancy restrictions (17,810 acres) or closed to oil and gas leasing (137,802 acres).

ALTERNATIVE D  
BLM would provide stipulations to protect resource values identified as conflicting with oil and gas exploration and development. Land available for oil and gas leasing would be subject to standard terms only (441,495 acres), stipulations (767,811 acres), No Surface Occupancy restrictions (2,034,819 acres) or closed to oil and gas leasing (143,562 acres).

ALTERNATIVE E (PREFERRED)  
BLM would provide for oil and gas exploration and development, while protecting other resource values. Land available for oil and gas leasing would be subject to standard terms only (1,474,481 acres), stipulations (1,760,426 acres), No Surface Occupancy restrictions (34,818 acres) or closed to oil and gas leasing (117,962 acres).

## HARDROCK MINING

### ALTERNATIVE A (CURRENT)

BLM would provide for hardrock exploration and development while mitigating impacts to other resources. Management emphasis would be on preventing unnecessary or undue degradation by applying mitigating measures on a project specific basis during Notice review or plan approval. BLM withdrawals would segregate 2,653 acres from mineral entry.

### ALTERNATIVE B

BLM would provide for hardrock exploration and development by using minimum constraints on mineral activity while still maintaining compliance with mandatory federal, state and local laws, regulations and requirements. BLM withdrawals would segregate 320 acres from mineral entry.

### ALTERNATIVE C

BLM would provide for hardrock exploration and development while protecting other resources of exceptional value with special management prescriptions. BLM withdrawals would segregate 2,447 acres from mineral entry.

### ALTERNATIVE D

BLM would protect certain sensitive areas by withdrawing them from location and entry under the mining laws. Sensitive areas would include some areas with scenic values, some crucial elk and bighorn sheep habitat and certain potential ACECs. BLM withdrawals would segregate 50,533 acres from mineral entry.

### ALTERNATIVE E (PREFERRED)

BLM would provide for hardrock exploration and development, while protecting other resources of exceptional value through withdrawal from mineral entry or with special management prescriptions. BLM withdrawals would segregate 4,647 acres from mineral entry.

## RIPARIAN AND WETLAND MANAGEMENT OF WATERSHEDS

### ALTERNATIVE A (CURRENT)

BLM would maintain and/or improve riparian-wetland areas in 270 allotments with 498 stream miles and 4,118 water sources. The objective would be to protect existing riparian-wetland areas and improve potential areas for waterfowl and wildlife habitat.

### ALTERNATIVE B

BLM would maintain and/or improve riparian-wetland areas in 192 allotments with 369 stream miles and 3,480 water sources. The objective would be to improve or maintain riparian-wetland areas to proper functioning condition and to provide wildlife habitat.

### ALTERNATIVE C

BLM would maintain and/or improve riparian-wetland areas in 421 allotments with 556 stream miles and 5,910 water sources. The objective would be to improve or maintain riparian-wetland areas to proper functioning condition and desired plant community and provide wildlife habitat, increase waterfowl habitat and improve watershed conditions.

### ALTERNATIVE D

BLM would maintain and/or improve riparian-wetland areas in 647 allotments with 599 stream miles and 6,387 water sources. The objective would be to improve or maintain riparian-wetland areas to proper functioning condition and desired plant community and provide wildlife habitat, increase waterfowl habitat and improve watershed conditions.

### ALTERNATIVE E (PREFERRED)

BLM would maintain and/or improve riparian-wetland areas in 348 allotments with 595 stream miles and 5,850 water sources. The objective would be to improve or maintain riparian-wetland areas to proper functioning condition and desired plant community and provide wildlife habitat, increase waterfowl habitat and improve watershed conditions.



## ELK AND BIGHORN SHEEP HABITAT MANAGEMENT

### ALTERNATIVE A (CURRENT)

BLM would maintain elk habitat in the Missouri Breaks, Highwood Mountains and Little Belt Mountains and provide habitat for elk expansion on BLM land, where forage is available, in the Missouri Breaks, Square Butte, and Judith, North Moccasin and Snowy Mountains (593,980 acres).

BLM would maintain bighorn sheep habitat in the Little Rocky Mountains and Missouri Breaks and provide habitat for bighorn sheep expansion, where forage is available, in the Chimney Bend area (84,711 acres).

### ALTERNATIVE B

BLM would maintain elk habitat in the Missouri Breaks, Square Butte, and Highwood, Little Belt, Judith, North Moccasin, and Snowy Mountains (593,980 acres).

BLM would maintain bighorn sheep habitat in the Little Rocky Mountains and Missouri Breaks (66,788 acres).

### ALTERNATIVE C

BLM would maintain elk habitat in the Missouri Breaks, Highwood Mountains and Little Belt Mountains and provide habitat for elk expansion on BLM land, where forage is available, in the Missouri Breaks, Square Butte, and Judith, North Moccasin and Snowy Mountains (593,980 acres).

BLM would maintain bighorn sheep habitat in the Little Rocky Mountains and Missouri Breaks and provide habitat for bighorn sheep expansion, where forage is available, in the Chimney Bend area (84,711 acres).

### ALTERNATIVE D

BLM would maintain or provide elk habitat for expansion in the Missouri Breaks, Square Butte, and Highwood, Little Belt, Judith, Moccasin, and Snowy Mountains (660,140 acres).

BLM would maintain or provide habitat for expansion in the Little Rocky Mountains, Missouri Breaks, Larb Hills, Chimney Bend and Bull Creek area (156,930 acres).

### ALTERNATIVE E (PREFERRED)

BLM would maintain elk habitat on BLM land in the Missouri Breaks, Square Butte, and Highwood, Little Belt, Judith, and Snowy Mountains (593,980 acres).

BLM would maintain or provide habitat for expansion in the Little Rocky Mountains, Missouri Breaks, Larb Hills, Chimney Bend and Bull Creek area (156,930 acres).

## PRAIRIE DOG AND BLACK-FOOTED FERRET MANAGEMENT

### ALTERNATIVE A (CURRENT)

BLM would provide 3,308 acres of scattered prairie dog towns in the Phillips RA for black-footed ferret reintroduction, associate species, recreational viewing and temporary prairie dog shooting.

BLM would eliminate prairie dog towns on 10,013 acres to stabilize the watershed and improve range condition.

BLM would also provide 770 acres of prairie dog towns for associate species in the Valley RA.

### ALTERNATIVE B

BLM would provide 6,462 acres of prairie dog towns in the Phillips RA for black-footed ferret reintroduction, associate species, recreational viewing and prairie dog shooting. BLM land would be designated an ACEC.

BLM would eliminate prairie dog towns on 6,859 acres to stabilize the watershed and improve range condition.

BLM would also provide 770 acres of prairie dog towns for associate species in the Valley RA.

### ALTERNATIVE C

BLM would provide 7,367 acres of prairie dog towns in the Phillips RA for black-footed ferret reintroduction, associate species, and recreational viewing. BLM land would be designated an ACEC. BLM would also provide 4,624 acres for prairie dog shooting.

BLM would eliminate prairie dogs on 1,330 acres to stabilize the watershed and improve range condition.

BLM would also provide 770 acres of prairie dog towns for associate species in the Valley RA.

### ALTERNATIVE D

BLM would provide 12,105 acres of prairie dog towns in the Phillips RA for black-footed ferret reintroduction, associate species and recreational viewing. BLM land would be designated an ACEC. BLM would initially provide 1,115 acres of prairie dog towns in the Phillips RA for prairie dog shooting and allow expansion on another 8,885 acres.

Prairie dog towns would be allowed to expand to 5,000 acres in both the Valley and Judith RAs.

### ALTERNATIVE E (PREFERRED)

BLM would provide 12,346 acres of prairie dog towns in the Phillips RA for black-footed ferret reintroduction, associate species, recreational viewing and prairie dog shooting. BLM land would be designated an ACEC.

BLM would maintain or manage the existing prairie dog towns in the Valley (800 acres) and Judith (71 acres) RAs.

## JUDITH MOUNTAINS SCENIC AREA

ALTERNATIVE A (CURRENT)  
BLM would not designate the area an ACEC and current management would continue.

ALTERNATIVE B  
BLM would not designate the area an ACEC and current management would continue.

ALTERNATIVE C  
BLM would designate 4,566 acres an ACEC to protect the scenic qualities of the visual resources in the Judith and South Moccasin Mountains. This area would be managed to protect the visual resources from surface disturbing activities. Surface disturbing activities would not be allowed which could not be mitigated and reclaimed to natural conditions.

ALTERNATIVE D  
BLM would designate 4,566 acres an ACEC to protect the scenic qualities of the visual resources in the Judith and South Moccasin Mountains. This area would be managed to protect the visual resources from surface disturbing activities. The area would be withdrawn from mineral entry and surface disturbing activities would not be allowed which could not be mitigated and reclaimed to natural conditions.

ALTERNATIVE E (PREFERRED)  
BLM would designate 3,702 acres an ACEC to protect the scenic, wildlife and recreation values in the Judith Mountains. This area would be managed to mitigate impacts to resources from surface disturbing activities.

## ACID SHALE-PINE FOREST

ALTERNATIVE A (CURRENT)  
BLM would not designate the area an ACEC and current management would continue.

ALTERNATIVE B  
BLM would not designate the area an ACEC and current management would continue.

ALTERNATIVE C  
BLM would designate 817 acres within the Acid Shale-Pine Forest ecosystem an ACEC to protect an endemic plant community unique to the area and a fragile watershed.

ALTERNATIVE D  
BLM would designate 3,619 acres within the Acid Shale-Pine Forest range an ACEC to protect an endemic plant community unique to the area. This area contains four tracts of BLM land; War Horse, Briggs Coulee, Chippewa Creek and Ford's Creek.

ALTERNATIVE E (PREFERRED)  
BLM would designate two representative BLM tracts, War Horse (817 acres) and Briggs Coulee (1,646 acres), within an Acid Shale-Pine Forest ecosystem an ACEC to protect an endemic plant community unique to the area and a fragile watershed.

## SQUARE BUTTE ONA

ALTERNATIVE A (CURRENT)  
BLM would designate 1,947 acres an ACEC to protect natural endemic systems, cultural resource sites, scenic qualities, and rare geologic features unique to Montana. Current management would continue.

ALTERNATIVE B  
BLM would designate 1,947 acres an ACEC to protect natural endemic systems, cultural resource sites, scenic qualities, and rare geologic features unique to Montana. The area would be open to mining claim location.

ALTERNATIVE C  
BLM would designate 1,947 acres an ACEC to protect natural endemic systems, cultural resource sites, scenic qualities, and rare geologic features unique to Montana.

ALTERNATIVE D  
BLM would designate 1,947 acres an ACEC to protect natural endemic systems, cultural resource sites, scenic qualities, and rare geologic features unique to Montana.

ALTERNATIVE E (PREFERRED)  
BLM would designate 1,947 acres an ACEC to protect natural endemic systems, cultural resource sites, scenic qualities, and rare geologic features unique to Montana.

## COLLAR GULCH

### ALTERNATIVE A (CURRENT)

BLM would not designate the area an ACEC and current management would continue.

### ALTERNATIVE B

BLM would not designate the area an ACEC and current management would continue.

### ALTERNATIVE C

BLM would designate 1,160 acres an ACEC to protect a pure strain of westslope cutthroat trout, which is a Montana State Species of Special Concern. The area's primary emphasis would be on protecting wildlife (westslope cutthroat trout) habitat and nonmotorized recreational use.

### ALTERNATIVE D

BLM would designate 1,618 acres an ACEC to protect a pure strain of westslope cutthroat trout which is a Montana State Species of Special Concern. The area would be withdrawn from mineral entry. The primary emphasis would be on wildlife habitat protection and improvement for the westslope cutthroat trout population, with some associated nonmotorized recreational use.

### ALTERNATIVE E (PREFERRED)

BLM would not designate the area an ACEC and the area would remain open to mineral entry.

## AZURE CAVE

### ALTERNATIVE A (CURRENT)

BLM would not designate the area an ACEC and current management would continue.

### ALTERNATIVE B

BLM would not designate the area an ACEC and the gate to the entrance would be removed and the withdrawal revoked.

### ALTERNATIVE C

BLM would designate 479 acres an ACEC to protect cave resources and potentially the northernmost bat hibernaculum in the United States.

### ALTERNATIVE D

BLM would designate 479 acres an ACEC to protect cave resources and potentially the northernmost bat hibernaculum in the United States.

### ALTERNATIVE E (PREFERRED)

BLM would designate 140 acres an ACEC to protect cave resources and potentially the northernmost bat hibernaculum in the United States.

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## BIG BEND OF THE MILK RIVER

### ALTERNATIVE A (CURRENT)

BLM would not designate the area an ACEC and current management would continue.

### ALTERNATIVE B

BLM would not designate the area an ACEC and current management would continue.

### ALTERNATIVE C

BLM would designate 2,120 acres within the Henry Smith and Beaucoup Sites an ACEC to protect unusual and unique archaeological resources representing bison hunting and prehistoric ceremonial use of the Northwestern Plains.

### ALTERNATIVE D

BLM would designate 10,720 acres within the Henry Smith and Beaucoup Sites an ACEC to protect unusual and unique archaeological resources representing bison hunting and prehistoric ceremonial use of the Northwestern Plains. The area would be withdrawn from mineral entry.

### ALTERNATIVE E (PREFERRED)

BLM would designate 2,120 acres within the Henry Smith and Beaucoup Sites an ACEC to protect unusual and unique archaeological resources representing bison hunting and prehistoric ceremonial use of the Northwestern Plains. The area would be withdrawn from mineral entry.

**TABLE S.2**  
**SUMMARY OF THE ENVIRONMENTAL CONSEQUENCES**

**IMPACTS TO OIL AND GAS**

	<u>Alternative A (Current)</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E (Preferred)</u>
Land Acquisition and Disposal	An increase in split surface from mineral estate; a minor negative impact.	Same as A.	Same as A.	Same as A.	Same as A.
Access to BLM Land	Alternative A (Current) No impact.	Alternative B No impact.	Alternative C No impact.	Alternative D The process of obtaining access to leased land would be simplified; a minor positive impact.	Alternative E (Preferred) Same as D.
Off-Road Vehicles	Alternative A (Current) No impact.	Alternative B Most land open to ORV use would simplify geophysical exploration activity; a positive impact.	Alternative C Land restricted yearlong to ORVs would complicate geophysical exploration activity; a minor negative impact.	Alternative D Same as C.	Alternative E (Preferred) Same as C.
Oil and Gas Leasing and Development	Alternative A (Current) Most of the high and moderate development potential land (95%) would be available for oil and gas exploration and development with standard or special stipulations; a positive impact.	Alternative B The maximum amount of land (97%) would be open to oil and gas exploration and development with standard lease terms; a positive impact.	Alternative C Most of the high and moderate development potential land (92%) would be available for oil and gas exploration and development with standard lease terms and stipulations; a positive impact.	Alternative D Only 36% of the high and moderate development potential land would be available for oil and gas exploration and development with standard lease terms and stipulations; a negative impact.	Alternative E (Preferred) Most of the high and moderate development potential land (96%) would be available for oil and gas exploration and development with standard lease terms and stipulations; a positive impact.
Riparian and Wetland Management of Watersheds	Alternative A (Current) No impact.	Alternative B More access to water sources; a positive impact.	Alternative C No impact.	Alternative D Acquiring riparian-wetland areas could potentially restrict some areas along streams and rivers; a negative impact.	Alternative E (Preferred) Same as D.
Elk and Bighorn Sheep Habitat Management	Alternative A (Current) Seasonal restrictions would apply to 571,000 acres and 14,000 acres would be leased with No Surface Occupancy restrictions; a minor negative impact.	Alternative B Standard terms could move or delay exploration activities; a minor negative impact.	Alternative C Seasonal restrictions would apply to winter range; a minor negative impact.	Alternative D No Surface Occupancy restrictions would apply to winter range; a negative impact.	Alternative E (Preferred) Same as C.
Prairie Dog and Black-Footed Ferret Management	Alternative A (Current) No Surface Occupancy restrictions would apply to 10,680 acres; a negative impact.	Alternative B Standard terms would move or delay exploration activities; a minor negative impact.	Alternative C No Surface Occupancy restrictions would apply to 70,000 acres; a negative impact.	Alternative D No Surface Occupancy restrictions would apply to 400,000 acres; a negative impact.	Alternative E (Preferred) A Controlled Surface Use restriction would apply to prairie dog towns within the reintroduction area; a negative impact.

Judith Mountains Scenic Area	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> Stipulations would apply to protect visual resources; a minor negative impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.
Azure Cave	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> The area would be available for oil and gas leasing; a positive impact.	<u>Alternative C</u> No impact.	<u>Alternative D</u> No impact.	<u>Alternative E (Preferred)</u> No impact.
Big Bend of the Milk River	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> No Surface Occupancy restrictions would apply to 2,120 acres; a minor negative impact.	<u>Alternative D</u> No Surface Occupancy restrictions would apply to 10,720 acres; a negative impact.	<u>Alternative E (Preferred)</u> No Surface Occupancy restrictions would apply to 1,000 acres; a minor negative impact.

### IMPACTS TO HARDROCK MINERALS

Land Acquisition and Disposal	<u>Alternative A (Current)</u> An increase in split surface from mineral estate and the likelihood of surface owner conflicts with mineral development; a minor negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Hardrock Mining	<u>Alternative A (Current)</u> Most of the high (99%) and moderate (99%) development potential land would be available for mineral development; a positive impact.	<u>Alternative B</u> All of the high (100%) and most of the moderate (99%) development potential land would be available for mineral development; a positive impact.	<u>Alternative C</u> Most of the high (94%) and moderate (85%) development potential land would be available for mineral development without restrictions; a positive impact. Some of the high (5%) and moderate (15%) development land would have restrictions; a negative impact.	<u>Alternative D</u> Nearly half of the land with hardrock mineral development potential would be closed to mining; a significant negative impact.	<u>Alternative E (Preferred)</u> Most of the high (97%) and moderate (88%) development potential land would be available for mineral development without restrictions; a positive impact. Some of the moderate (12%) development land would have restrictions; a negative impact.
Elk and Bighorn Sheep Habitat Management	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> Management prescriptions would affect mineral exploration and development; a minor negative impact.	<u>Alternative D</u> The proposed withdrawal would close 33% of the high development potential land to mineral exploration and development; a significant negative impact.	<u>Alternative E (Preferred)</u> Same as C.

Prairie Dog and Black-Footed Ferret Management	<u>Alternative A (Current)</u> Bentonite mining activities could be precluded if disturbances could not be mitigated on prairie dog towns selected for reintroduction of the ferret; locally significant negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Judith Mountains Scenic Area	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> Management prescriptions could restrict development of mineral resources by open-pit mining; a significant negative impact.	<u>Alternative D</u> The proposed withdrawal would close the area to mineral exploration and development; a significant negative impact.	<u>Alternative E (Preferred)</u> Management prescriptions could restrict the development of one large open-pit mineral operation; a significant negative impact.
Acid Shale-Pine Forest	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> A Plan of Operations would be required for locatable mineral operators; a minor negative impact.	<u>Alternative D</u> The proposed withdrawal would close the area to mineral exploration and development, particularly bentonite resources; a significant negative impact.	<u>Alternative E (Preferred)</u> Same as C.
Square Butte ONA	<u>Alternative A (Current)</u> The area would be closed to mineral exploration and development; a minor negative impact.	<u>Alternative B</u> The area would be available for mineral exploration and development; a minor positive impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Collar Gulch	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> A Plan of Operations would be required for locatable mineral operators; a minor negative impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as A.
Azure Cave	<u>Alternative A (Current)</u> Mine development in the Pony Gulch area could be restricted; a negative impact.	<u>Alternative B</u> The area would be available for exploration and development; a positive impact.	<u>Alternative C</u> Similar to A, except a Plan of Operations would be required for locatable mineral operators; a negative impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as A.
Big Bend of the Milk River	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> A Plan of Operations would be required for locatable mineral operators; a minor negative impact.	<u>Alternative D</u> The proposed withdrawal would close 10,720 acres to mineral exploration and development (bentonite resources); a significant negative impact.	<u>Alternative E (Preferred)</u> The proposed withdrawal would close 2,120 acres to mineral exploration and development (bentonite resources); a minor negative impact.

## IMPACTS TO AIR AND WATER QUALITY

	<u>Alternative A (Current)</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E (Preferred)</u>
Land Acquisition and Disposal	Dust would cause local pollution from BLM land converted to cropland on about 68,000 acres; not a significant impact.	Same as A.	Same as A.	Same as A.	Same as A.
Oil and Gas Leasing and Development	Alternative A (Current) Air quality would be affected in the immediate area of active wells where venting or flaring occurs; not a significant impact.	Alternative B Same as A.	Alternative C Same as A.	Alternative D Same as A.	Alternative E (Preferred) Same as A.
Hardrock Mining	Alternative A (Current) Surface and groundwater degradation is possible during and after mining operations. Significant water quality degradation would not occur under normal operating conditions. As the number of active mine sites increases, the risk of experiencing abnormal operating conditions and water quality degradation also increases.	Alternative B Same as A.	Alternative C Similar to A, except the revocation of withdrawals would increase the risk of water contamination.	Alternative D Similar to A, except the proposed withdrawals would decrease the risk of water contamination.	Alternative E (Preferred) Same as A.
Riparian and Wetland Management of Watersheds	Alternative A (Current) Water quality would improve by increasing stream bank vegetation and reducing erosion on 199 miles of stream.	Alternative B Water quality would improve by increasing stream bank vegetation and reducing erosion on 147 miles of stream.	Alternative C Water quality would improve by increasing stream bank vegetation and reducing erosion on 206 miles of stream.	Alternative D Water quality would improve by increasing stream bank vegetation and reducing erosion on 240 miles of stream.	Alternative E (Preferred) Water quality would improve by increasing stream bank vegetation and reducing erosion on 238 miles of stream.
Collar Gulch	Alternative A (Current) Mining could contaminate surface and groundwater; a negative impact.	Alternative B Same as A.	Alternative C Management prescriptions would address the present stream contamination problem; a positive impact.	Alternative D Same as C.	Alternative E (Preferred) Same as A.

## IMPACTS TO SOIL AND VEGETATION

	<u>Alternative A (Current)</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E (Preferred)</u>
Land Acquisition and Disposal	Alternative A (Current) An increase in soil erosion from BLM land converted to cropland on about 68,000 acres; a minor negative impact. No impact on land acquired.	Alternative B Same as A.	Alternative C Same as A.	Alternative D Same as A.	Alternative E (Preferred) Same as A.

	<u>Alternative A (Current)</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E (Preferred)</u>
Access to BLM Land	Slight risk of erosion from damage to vegetation with new or improved roads and increased use by the public. Slight increased risk for the spread of noxious plants.	No impact.	Same as A.	Same as A.	Same as A.
Off-Road Vehicles	Alternative A (Current) Some loss of soil due to increased erosion from ORV use; not a significant impact. High potential for the spread of noxious plants.	Alternative B Similar to A, except the potential for the spread of noxious plants would increase slightly.	Alternative C Similar to A, except destruction of vegetation and creating new trails would be curtailed on 862,709 acres. Potential for the spread of noxious plants would be reduced.	Alternative D Recovery of locally impacted areas and the potential for the spread of noxious plants would be reduced.	Alternative E (Preferred) Similar to A, except destruction of vegetation and creating new trails would be curtailed on 656,296 acres. Potential for the spread of noxious plants would be reduced.
Oil and Gas Leasing and Development	Alternative A (Current) Short-term soil erosion within the immediate site of well pads, roads and pipelines would result in a loss of vegetation; not a significant impact.	Alternative B Similar to A, except potential for increased soil erosion on slopes greater than 30%.	Alternative C Similar to A, except greater protection would be provided for soils on slopes greater than 30% and for floodplain and riparian areas.	Alternative D Same as C.	Alternative E (Preferred) Same as C.
Hardrock Mining	Alternative A (Current) Projected exploration and mining could disturb 1,430 acres. Reclamation would restore vegetation in the long-term.	Alternative B Same as A.	Alternative C Projected exploration and mining could disturb 1,330 acres. Reclamation would restore vegetation in the long-term.	Alternative D Projected exploration and mining could disturb 985 acres. Reclamation would restore vegetation in the long-term.	Alternative E (Preferred) Same as C.
Riparian and Wetland Management of Watersheds	Alternative A (Current) Overall, 199 stream miles would improve to proper functioning condition and 299 stream miles would be maintained in proper functioning condition. Vegetation could increase by approximately 82,500 AUMs.	Alternative B Overall, 147 stream miles would improve to proper functioning condition and 221 stream miles would be maintained in proper functioning condition. Vegetation could increase by approximately 58,750 AUMs.	Alternative C Overall, 206 stream miles would improve to proper functioning condition and 308 stream miles would be maintained in proper functioning condition. Vegetation could increase by approximately 95,750 AUMs.	Alternative D Overall, 240 stream miles would improve to proper functioning condition and 360 stream miles would be maintained in proper functioning condition. Vegetation could increase by approximately 103,000 AUMs.	Alternative E (Preferred) Overall, 238 stream miles would improve to proper functioning condition and 357 stream miles would be maintained in proper functioning condition. Vegetation could increase by approximately 92,860 AUMs.
Prairie Dog and Black-Footed Ferret Management	Alternative A (Current) Increased vegetation cover and improved ecological condition on 10,013 acres. The 3,308 acres of prairie dog towns managed for ferrets would remain in poor ecological condition.	Alternative B Increased vegetation cover and improved ecological condition on 6,859. The 6,462 acres of prairie dog towns managed for ferrets would remain in poor ecological condition.	Alternative C Increased vegetation cover and improved ecological condition on 1,330. The 7,367 acres of prairie dog towns managed for ferrets and the 4,624 acres managed for shooting would remain in poor ecological condition.	Alternative D Potentially, 18,014 acres could decrease in ecological condition and increased soil erosion. The 12,105 acres of prairie dog towns managed for ferrets would remain in poor ecological condition.	Alternative E (Preferred) The 12,346 acres of prairie dog towns managed for ferrets would remain in poor ecological condition.
Judith Mountains Scenic Area	Alternative A (Current) Exploration and mining could disturb soils and subsoils through road-building, open-pit mining and heap leaching; a negative impact.	Alternative B Same as A.	Alternative C Mitigating surface disturbing activities would maintain natural vegetation; a positive impact.	Alternative D Same as C.	Alternative E (Preferred) Same as C.



Acid Shale- Pine Forest	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> No impact.	<u>Alternative D</u> No risk of soil or vegetation disturbance.	<u>Alternative E (Preferred)</u> Soil and vegetation could be disturbed from mining; a negative impact.
Collar gulch	<u>Alternative A (Current)</u> Soil and vegetation could be disturbed from mining and ORV use; a negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> No impact.	<u>Alternative D</u> No impact.	<u>Alternative E (Preferred)</u> Same as A.
Big Bend of the Milk River	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> No risk of soil or vegetation disturbance.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.

### IMPACTS TO LIVESTOCK GRAZING MANAGEMENT

Land Acquisition and Disposal	<u>Alternative A (Current)</u> Livestock forage could be reduced by 9,125 AUMs from disposal and acquisition.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Off-Road Vehicles	<u>Alternative A (Current)</u> Forage damage in some of the most popular hunting areas; not a significant impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Limitations would eliminate forage damage in the most popular hunting areas; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Similar to C, except forage damage in the Cottonwood and Frenchman Creek areas; not a significant impact.
Hardrock Mining	<u>Alternative A (Current)</u> Livestock grazing could be affected in the North and South Moccasin, Little Belt and portions of the Judith Mountains; not a significant impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> No impact.	<u>Alternative E (Preferred)</u> Same as A.
Riparian and Wetland Management of Watersheds	<u>Alternative A (Current)</u> Livestock forage could increase by 33,000 AUMs with improved ecological condition and increased watershed cover. Management costs would increase for affected ranchers (\$1.3 million) but these costs could be offset by improved livestock productivity.	<u>Alternative B</u> Livestock forage could increase by 23,500 AUMs with improved ecological condition and increased watershed cover. Management costs would increase for affected ranchers (\$0.8 million) but these costs could be offset by improved livestock productivity.	<u>Alternative C</u> Livestock forage could increase by 38,300 AUMs with improved ecological condition and increased watershed cover. Management costs would increase for affected ranchers (\$2.5 million) but these costs could be offset by improved livestock productivity.	<u>Alternative D</u> Livestock forage would not increase with improved ecological condition and increased watershed cover. Management costs would increase for affected ranchers (\$3.1 million) but these costs could be offset by improved livestock productivity.	<u>Alternative E (Preferred)</u> Livestock forage could increase on a case-by- case basis with improved ecological condition and increased watershed cover. Management costs would increase for affected ranchers (\$2.2 million) but these costs could be offset by improved livestock productivity.
Prairie Dog and Black- Footed Ferret Management	<u>Alternative A (Current)</u> In the short-term (5 yrs) livestock forage would decrease by 1,940 AUMs. This would be replaced by land treatments.	<u>Alternative B</u> No impact.	<u>Alternative C</u> In the short-term (5yrs) livestock forage would decrease by 815 AUMs. This would be replaced by land treatments.	<u>Alternative D</u> In the short-term (5yrs) livestock forage would decrease by 1,105 AUMs. This would be replaced by land treatments.	<u>Alternative E (Preferred)</u> No impact.

Acid Shale- Pine Forest	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> No impact.	<u>Alternative D</u> Livestock forage would decrease by 100 AUMs for two permittees.	<u>Alternative E (Preferred)</u> No impact.
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## IMPACTS TO WILDLIFE

Land Acquisition and Disposal	<u>Alternative A (Current)</u> Exchanges would result in habitat changes that would positively impact some wildlife while not benefiting others; overall, a positive impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Access to BLM Land	<u>Alternative A (Current)</u> Additional access could disturb crucial wildlife habitat; a minor negative impact.	<u>Alternative B</u> Access could disturb crucial wildlife habitat; a minor negative impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Off-Road Vehicles	<u>Alternative A (Current)</u> ORV use would cause short-term species movement and disturbance during critical periods. This disturbance would be less in areas limited to ORV use (428,770 acres). Overall, a negative impact.	<u>Alternative B</u> ORV use would cause short-term species movement and disturbance during critical periods. This disturbance would be less in areas limited to ORV use (116,640 acres). Overall, a negative impact.	<u>Alternative C</u> ORV use would cause short-term species movement and disturbance during critical periods. This disturbance would be less in areas limited to ORV use (983,915 acres). Overall, a positive impact.	<u>Alternative D</u> ORV use would cause short-term species movement and disturbance during critical periods. This disturbance would be less in areas limited to ORV use (2,785,147 acres). Overall, a positive impact.	<u>Alternative E (Preferred)</u> ORV use would cause short-term species movement and disturbance during critical periods. This disturbance would be less in areas limited to ORV use (813,769 acres). Overall, a positive impact.
Oil and Gas Leasing and Development	<u>Alternative A (Current)</u> Habitat for raptor nesting would not be fully protected; a negative impact. Overall, this alternative would protect most wildlife resources; a significant positive impact.	<u>Alternative B</u> Standard terms would allow oil and gas activities too close to various wildlife habitat during critical periods. Overall, the standard terms would not protect most wildlife resources; a significant negative impact.	<u>Alternative C</u> Wildlife on winter range would not be fully protected during severe winters. Overall, this alternative would protect most wildlife resources; a significant positive impact.	<u>Alternative D</u> This alternative would protect wildlife resources; a significant positive impact.	<u>Alternative E (Preferred)</u> Wildlife on winter range would not be fully protected during severe winters and the entire grouse nesting habitat would not be completely protected; a negative impact. Overall, this alternative would protect wildlife resources; a significant positive impact.
Hardrock Mining	<u>Alternative A (Current)</u> Blasting, movement of ore with machinery and general mine activities disrupt the normal activities of wildlife, especially in the summer. Wildlife do adapt to mining activities, but mining may disturb wildlife during critical time periods. Overall, not a significant impact.	<u>Alternative B</u> Similar to A, except the loss of specific withdrawals would have locally significant negative impacts for Azure Cave and Square Butte.	<u>Alternative C</u> Similar to A, except management prescriptions would protect crucial elk and bighorn sheep habitat; a positive impact.	<u>Alternative D</u> Similar to A, except the proposed withdrawals would protect some crucial elk and bighorn sheep habitat; a significant positive impact.	<u>Alternative E (Preferred)</u> Same as C.

Riparian and Wetland Management of Watersheds	<u>Alternative A (Current)</u> Improved wildlife habitat along 498 stream miles and an increase in waterfowl production (149,900 ducks and 23,800 geese); a significant positive impact.	<u>Alternative B</u> Improved wildlife habitat along 368 stream miles and an increase in waterfowl production (97,000 ducks and 17,100 geese); a significant positive impact.	<u>Alternative C</u> Improved wildlife habitat along 556 stream miles and an increase in waterfowl production (150,300 ducks and 27,500 geese); a significant positive impact.	<u>Alternative D</u> Improved wildlife habitat along 599 stream miles and an increase in waterfowl production (161,100 ducks and 29,600 geese); a significant positive impact.	<u>Alternative E (Preferred)</u> Improved wildlife habitat along 595 stream miles and an increase in waterfowl production (161,100 ducks and 25,800 geese); a significant positive impact.
Elk and Bighorn Sheep Habitat Management	<u>Alternative A (Current)</u> This alternative would provide 593,980 acres of elk habitat, 84,711 acres of bighorn sheep habitat and would not protect bighorns from contracting diseases from domestic sheep; overall, a positive impact.	<u>Alternative B</u> This alternative would provide 593,980 acres of elk habitat, 66,788 acres of bighorn sheep habitat and would not protect bighorns from contracting diseases from domestic sheep; overall, a negative impact.	<u>Alternative C</u> This alternative would provide 593,980 acres of elk habitat, 84,771 acres of bighorn sheep habitat and protect bighorns from contracting diseases from domestic sheep; overall, a significant positive impact.	<u>Alternative D</u> This alternative would provide 660,140 acres of elk habitat, 156,930 acres of bighorn sheep habitat and protect bighorns from contracting diseases from domestic sheep; overall, a significant positive impact.	<u>Alternative E (Preferred)</u> Same as C.
Prairie Dog and Black-Footed Ferret Management	<u>Alternative A (Current)</u> Eliminating 10,013 acres of prairie dog towns would alter the existing habitat for black-footed ferret reintroduction and associate species; a significant negative impact.	<u>Alternative B</u> Eliminating 6,859 acres of prairie dog towns would alter the existing habitat for black-footed ferret reintroduction and associate species; a significant negative impact.	<u>Alternative C</u> About 7,367 acres of prairie dog towns would be available for ferret reintroduction; a significant negative impact.	<u>Alternative D</u> About 12,105 acres of prairie dog towns would be available for ferret reintroduction; a significant positive impact.	<u>Alternative E (Preferred)</u> About 12,346 acres of prairie dog towns would be available for ferret reintroduction; a significant positive impact.
Judith Mountains Scenic Area	<u>Alternative A (Current)</u> Hardrock mining activities could disturb some wildlife habitat; a minor negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> No impact.	<u>Alternative D</u> No impact.	<u>Alternative E (Preferred)</u> No impact.
Square Butte ONA	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> Hardrock mining activities could disturb some wildlife habitat; a negative impact.	<u>Alternative C</u> Similar to A, except acquiring additional wildlife habitat would be a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.
Collar Gulch	<u>Alternative A (Current)</u> Mining activity could disturb or destroy the westslope cutthroat population; a significant negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> The proposed withdrawal would protect the westslope cutthroat population; a significant positive impact.	<u>Alternative E (Preferred)</u> Same as A.
Azure Cave	<u>Alternative A (Current)</u> Closing the cave to public use and mining would protect the bat during hibernation; a significant positive impact.	<u>Alternative B</u> Unrestricted cave access and mining could disturb the bat hibernation and decrease the population; a significant negative impact.	<u>Alternative C</u> Cave access from May 15 to September 15 could disturb the bat hibernation and decrease the population; a significant negative impact.	<u>Alternative D</u> Cave access from June 15 to August 15 would not disturb the bat hibernation; a significant positive impact.	<u>Alternative E (Preferred)</u> This alternative would not disturb the bat hibernation; a significant positive impact.

## IMPACTS TO FORESTRY

	<u>Alternative A (Current)</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E (Preferred)</u>
Land Acquisition and Disposal	Disposing of about 166,000 acres could create a loss of approximately 1,000 acres of productive forest land. Annual allowable cut could increase as a result of land acquisition.	Same as A.	Same as A.	Same as A.	Same as A.
Off-Road Vehicles	<u>Alternative A (Current)</u> Restricting motorized travel would lessen the fire hazard potential; a positive impact.	<u>Alternative B</u> There would be a greater fire hazard potential; a negative impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Hardrock Mining	<u>Alternative A (Current)</u> There could be a loss of some productive timber with expansion of the existing mining operations; not a significant loss.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Judith Mountains Scenic Area	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> Approximately 3,000 acres of productive forest land would be limited to selective cutting; a minor negative impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.
Collar Gulch	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> Approximately 700 acres of productive forest land would not be available for harvest; a minor negative impact.	<u>Alternative D</u> Approximately 900 acres of productive forest land would not be available for harvest; a minor negative impact.	<u>Alternative E (Preferred)</u> Same as A.

## IMPACTS TO CULTURAL RESOURCES

	<u>Alternative A (Current)</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E (Preferred)</u>
Land Acquisition and Disposal	Inventorying land identified for disposal could increase the amount of cultural information; a positive impact.	Same as A.	Same as A.	Same as A.	Same as A.
Access to BLM Land	<u>Alternative A (Current)</u> Access would increase site disturbance and the potential for vandalism; a negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.

Off-Road Vehicles	<u>Alternative A (Current)</u> Areas open to ORV use result in site disturbance and increase the potential for vandalism; a negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Seasonal and yearlong restrictions would reduce site disturbance and the potential for vandalism; a positive impact.	<u>Alternative D</u> Seasonal and yearlong restrictions throughout the planning area would reduce site disturbance and the potential for vandalism; a positive impact.	<u>Alternative E (Preferred)</u> Same as C.
Oil and Gas Leasing and Development	<u>Alternative A (Current)</u> Inventorying lands could increase the amount of cultural information; a positive impact. An unknown number of an estimated 1,286 cultural properties could be disturbed; a negative impact.	<u>Alternative B</u> Similar to A, except an unknown number of an estimated 1,307 cultural properties could be disturbed; a negative impact.	<u>Alternative C</u> Similar to A, except an unknown number of an estimated 1,227 cultural properties could be disturbed; a negative impact.	<u>Alternative D</u> Similar to A, except an unknown number of an estimated 643 cultural properties could be disturbed; a negative impact.	<u>Alternative E (Preferred)</u> Similar to A, except an unknown number of an estimated 1,289 cultural properties could be disturbed; a negative impact.
Hardrock Mining	<u>Alternative A (Current)</u> Mining could disturb some cultural properties; a negative impact. Potential impacts could be mitigated through avoidance or information recovery.	<u>Alternative B</u> Similar to A, except an increased risk for disturbance.	<u>Alternative C</u> Similar to A, except a decreased risk for disturbance.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.
Elk and Bighorn Sheep Habitat Management	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> Mechanical treatments would require cultural resource inventories which could gather additional resource information; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.
Prairie Dog and Black-Footed Ferret Management	<u>Alternative A (Current)</u> Mechanical treatments would require cultural resource inventories which could gather additional resource information; a positive impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Judith Mountains Scenic Area	<u>Alternative A (Current)</u> Mining development could potentially disturb some cultural properties; a negative impact. Potential impacts could be mitigated through avoidance or information recovery.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Similar to A, except a decreased risk for disturbance.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.
Square Butte ONA	<u>Alternative A (Current)</u> Designation would protect cultural resources; a positive impact.	<u>Alternative B</u> Mining could disturb some cultural properties; a negative impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.

Collar Gulch	<u>Alternative A (Current)</u> Mining could disturb some cultural properties; a minor negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> No impact.	<u>Alternative D</u> No impact.	<u>Alternative E (Preferred)</u> Same as A.
Azure Cave	<u>Alternative A (Current)</u> Drilling or blasting associated with mining in the area could disturb some cultural properties; a slight possibility.	<u>Alternative B</u> Mining could disturb some cultural properties; a negative impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Big Bend of the Milk River	<u>Alternative A (Current)</u> Energy development and ORV use result in site disturbance and increase the potential for vandalism; a minor negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> The risk of site disturbance and vandalism would be reduced; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.

## IMPACTS TO RECREATION

Land Acquisition and Disposal	<u>Alternative A (Current)</u> Acquiring land with recreation potential would be a positive impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Access to BLM Land	<u>Alternative A (Current)</u> Not enough legal access to meet the long-term demand for recreation.	<u>Alternative B</u> The quality of recreation would be lessened with no additional access.	<u>Alternative C</u> Additional access could increase recreation use by 2,300 visits; a positive impact.	<u>Alternative D</u> Additional access could increase recreation use by 9,600 visits; a significant positive impact.	<u>Alternative E (Preferred)</u> Same as D.
Off-Road Vehicles	<u>Alternative A (Current)</u> Opportunities for off-road travel would not change.	<u>Alternative B</u> Opportunities for off-road travel would increase while opportunities for hunters who enjoy walk-in hunting would decrease.	<u>Alternative C</u> Opportunities for off-road travel would decrease while opportunities for hunters who enjoy walk-in hunting would increase.	<u>Alternative D</u> No opportunities for off-road travel; a significant negative impact. A significant increase in opportunities for hunters who enjoy walk-in hunting.	<u>Alternative E (Preferred)</u> Opportunities for off-road travel would increase. Opportunities for the handicapped, campers, snowmobilers and hunters would increase.
Oil and Gas Leasing and Development	<u>Alternative A (Current)</u> Quality of recreation would be lessened by the intrusion of oil and gas activities; a temporary negative impact.	<u>Alternative B</u> Hunting opportunities could decrease in some areas with crucial winter range; a locally significant negative impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Hardrock Mining	<u>Alternative A (Current)</u> Mining could discourage or curtail dispersed recreation use and displace some use to other areas.	<u>Alternative B</u> Similar to A, except revoking the withdrawals in the Little Rocky Mountains would allow mine development to the edge of the Camp Creek and Buffington recreation sites; a locally significant negative impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Similar to A, except the proposed withdrawal in the Judith Mountains would maintain dispersed recreation opportunities.	<u>Alternative E (Preferred)</u> Positive impacts would result from the continuation of some withdrawals and from management prescriptions on Plans of Operations. Minor negative impacts would result from the revocation of some withdrawals.

Riparian and Wetland Management of Watersheds	<u>Alternative A (Current)</u> The opportunities for wildlife viewing would increase in the planning area. Waterfowl production could provide 58,000 recreation visits for hunting in states south of Montana.	<u>Alternative B</u> Similar to A, except waterfowl production could provide 42,000 recreation visits for hunting in states south of Montana.	<u>Alternative C</u> Similar to A, except waterfowl production could provide 68,000 recreation visits for hunting in states south of Montana.	<u>Alternative D</u> Similar to A, except waterfowl production could provide 74,000 recreation visits for hunting in states south of Montana.	<u>Alternative E (Preferred)</u> Similar to A, except waterfowl production could provide 65,000 recreation visits for hunting in states south of Montana.
Elk and Bighorn Sheep Habitat Management	<u>Alternative A (Current)</u> Expansion of elk and bighorn sheep habitat would increase the opportunities for wildlife viewing and hunting.	<u>Alternative B</u> No change in the opportunities for wildlife viewing and hunting.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Similar to A, except acquiring elk habitat could increase hunting opportunities in some areas.	<u>Alternative E (Preferred)</u> Same as D.
Prairie Dog and Black-Footed Ferret Management	<u>Alternative A (Current)</u> The opportunity for viewing ferrets and associate species would increase within the reintroduction area; a positive impact. There would be a 100% loss of prairie dog shooting opportunities; a significant negative impact.	<u>Alternative B</u> Similar to A, expect there would be a 50% loss of prairie dog shooting opportunities; a significant negative impact.	<u>Alternative C</u> Similar to A, expect there would be a 62% loss of prairie dog shooting opportunities; a significant negative impact.	<u>Alternative D</u> Similar to A, except there would be a 86% loss of prairie dog shooting opportunities in the short-term; a significant negative impact. In the long-term there would be an increase in prairie dog shooting opportunities with the expansion of prairie dog towns on BLM land.	<u>Alternative E (Preferred)</u> Similar to A, except prairie dog shooting would continue unless impacts are shown to be detrimental to the ferret.
Judith Mountains Scenic Area	<u>Alternative A (Current)</u> Sightseeing and hiking could be disturbed from noise, traffic and road building associated with mining; a negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Some recreation activities would be maintained with protection of the scenic qualities; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> The quality of some recreation activities (sightseeing, hiking and camping) would be maintained and/or enhanced by ORV and ROW restrictions and management prescriptions for Plans of Operation.
Square Butte OMA	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> Opening the area to mining could affect recreation quality; a negative impact.	<u>Alternative C</u> Management prescriptions and acquisition of land would provide more opportunities for recreation, 800 visits; a significant positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.
Collar Gulch	<u>Alternative A (Current)</u> Potential loss of opportunities for wildlife viewing, sightseeing and hiking from disturbances associated with mining; a negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> The opportunities for recreation would be maintained; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as A.

Azure Cave	<u>Alternative A (Current)</u> No recreation access to the cave; a negative impact.	<u>Alternative B</u> A significant increase in recreation use in the short-term. Over time, attractiveness of the cave could diminish along with recreation use.	<u>Alternative C</u> A significant increase in the opportunities for recreation use, but the overall quality could decrease in the long term.	<u>Alternative D</u> A moderate increase in the opportunity for recreation use.	<u>Alternative E (Preferred)</u> Same as D.
Big Bend of the Milk River	<u>Alternative A (Current)</u> Potential loss of opportunities to interpret cultural resources; a negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> A moderate increase in recreation use and an opportunity to increase the quality of recreation; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.

### IMPACTS TO VISUAL RESOURCES

Land Acquisition and Disposal	<u>Alternative A (Current)</u> Disposing of about 166,000 acres could result in some visual impairment while acquiring land would maintain visual qualities; overall, a positive impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Access to BLM Land	<u>Alternative A (Current)</u> Access could deteriorate visual qualities depending on the frequency, type of use and location; a minor negative impact.	<u>Alternative B</u> No impact.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Off-Road Vehicles	<u>Alternative A (Current)</u> The visual quality would decrease in areas open to ORV use (2,375,440 acres); a negative impact. The visual quality would be maintained in areas limited or closed to ORV use (430,717 acres); a positive impact.	<u>Alternative B</u> The visual quality would decrease in areas open to ORV use (2,687,570 acres); a negative impact. The visual quality would be maintained in areas limited or closed to ORV use (118,587 acres); a positive impact.	<u>Alternative C</u> The visual quality would decrease in areas open to ORV use (1,818,437 acres); a negative impact. The visual quality would be maintained in areas limited or closed to ORV use (987,720 acres); a positive impact.	<u>Alternative D</u> The visual quality would decrease in the intensive ORV use area (40 acres); a minor negative impact. The visual quality would be maintained in areas limited or closed to ORV use (2,806,117 acres); a significant positive impact.	<u>Alternative E (Preferred)</u> The visual quality would decrease in areas open to ORV use (1,990,441 acres); a negative impact. The visual quality would be maintained in areas limited or closed to ORV use (815,716 acres); a positive impact.
Oil and Gas Leasing and Development	<u>Alternative A (Current)</u> Temporary negative impacts from production; the long-term impacts are minor.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Hardrock Mining	<u>Alternative A (Current)</u> Some long term or permanent changes in the natural landscape; a significant negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Similar to A, except the scenic qualities in the South Moccasin and Judith Mountains would be maintained; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Similar to A, except the scenic and visual qualities in the Judith Mountains Scenic Area would be maintained; a positive impact.



Riparian and Wetland Management of Watersheds	<u>Alternative A (Current)</u> Management prescriptions that improve riparian-wetland areas would enhance the visual qualities; a positive impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Judith Mountains Scenic Area	<u>Alternative A (Current)</u> Mining could have some long term or permanent changes in the natural landscape; a significant negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> The scenic qualities would be protected from surface disturbing activities; a significant positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> The scenic and visual qualities would be maintained; a positive impact.
Square Butte OMA	<u>Alternative A (Current)</u> Management prescriptions would maintain the visual qualities; a positive impact.	<u>Alternative B</u> Mining could have a negative impact on the visual resources.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Collar Gulch	<u>Alternative A (Current)</u> Mining could have some long term or permanent changes in the natural landscape; a significant negative impact.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Management prescriptions would maintain the visual qualities; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as A.
Azure Cave	<u>Alternative A (Current)</u> No impact.	<u>Alternative B</u> The visual quality could deteriorate from unrestricted access and mining.	<u>Alternative C</u> Management prescriptions would maintain the visual qualities; a positive impact.	<u>Alternative D</u> Same as C.	<u>Alternative E (Preferred)</u> Same as C.

## IMPACTS TO ECONOMIC CONDITIONS

Land Acquisition and Disposal	<u>Alternative A (Current)</u> There could be a net increase in annual tax revenues of \$30,000 for the planning area.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Access to BLM Land	<u>Alternative A (Current)</u> There could be a long-term negative impact in economic activity.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> In the Judith RA, there could be a 5% increase in recreation-related economic activity (\$160,000).	<u>Alternative D</u> There could be a 13% increase in recreation-related economic activity for the planning area (\$1.1 million).	<u>Alternative E (Preferred)</u> Same as D.
Off-Road Vehicles	<u>Alternative A (Current)</u> There would be no significant impacts.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> Same as A.	<u>Alternative E (Preferred)</u> Same as A.
Oil and Gas Leasing and Development	<u>Alternative A (Current)</u> Unless a major discovery occurs, there would be no significant impacts.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> Same as A.	<u>Alternative D</u> There could be a loss of potential future economic activity associated with exploration but no effect to economic activity in the regional economy.	<u>Alternative E (Preferred)</u> Same as A.

	<u>Alternative A (Current)</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E (Preferred)</u>
<b>Eardrock Mining</b>	There could be 18 mine expansions and/or new mining operations leading to significant impacts, both positive and negative, to economic conditions in the Judith and Phillips RAs.	Same as A.	Similar to A, except there could be 15 mine expansions and/or new mining operations in the Judith and Phillips RAs.	Similar to A, except there could be 11 mine expansions and/or new mining operations in the Judith and Phillips RAs. Conducting validity exams and purchasing valid claims could increase BLM costs.	Similar to A, except there could be 17 mine expansions and/or new mining operations in the Judith and Phillips RAs.
<b>Riparian and Wetland Management of Watersheds</b>	Grazing management costs could total \$22.4 million over the life of the plan, resulting in an increase in economic activity of \$30 million.	Grazing management costs could total \$14.0 million over the life of the plan, resulting in an increase in economic activity of \$19 million.	Grazing management costs could total \$26.2 million over the life of the plan, resulting in an increase in economic activity of \$35 million.	Grazing management costs could total \$29.1 million over the life of the plan, resulting in an increase in economic activity of \$39 million.	Grazing management costs could total \$23.5 million over the life of the plan, resulting in an increase in economic activity of \$31 million.
<b>Elk and Bighorn Sheep Habitat Management</b>	If elk and bighorn sheep harvest levels decline, there could be a short-term decrease in economic activity attributable to hunting, primarily in the Judith RA.	If elk and bighorn sheep harvest levels increase, there could be a short-term increase in economic activity attributable to hunting, primarily in the Judith RA.	Same as A.	Same as A.	Same as A.
<b>Prairie Dog and Black-Footed Ferret Management</b>	In the Phillips RA, there could be a 9% decrease in recreation-related economic activity (\$352,000) due to the loss of prairie dog shooting opportunities.	There would be no significant impacts.	In the Phillips RA, there could be a 6% decrease in recreation-related economic activity (\$228,000) due to the loss of prairie dog shooting opportunities.	In the Phillips RA, there would be an 8% decrease in recreation-related economic activity (\$321,000). In the long-term, economic activity would increase as prairie dog towns expand.	There would be no significant impacts.
<b>Judith Mountains Scenic Area</b>	Development of mineral resources could cause significant impacts, both positive and negative, to economic conditions.	Same as A.	There could be a significant loss of potential future economic activity in the Judith RA due to restriction on mineral development.	Similar to C, except conducting validity exams and purchasing valid mining claims could significantly increase BLM costs.	Similar to A, except one large open-pit mining operation could be restricted.
<b>Acid Shale-Pine Forest</b>	There would be no significant impacts.	There would be no significant impacts.	There would be no significant impacts.	There could be a loss of potential future economic activity associated with bentonite production.	There would be no significant impacts.
<b>Square Butte ONA</b>	There could be a loss of potential future economic activity associated with oil and gas development.	There could be an increase in economic activity associated with oil and gas development.	Same as A.	Same as A.	Same as A.
<b>Collar Gulch</b>	Development of mineral resources could cause significant impacts, both positive and negative, to economic conditions.	Same as A.	There could be a significant loss of potential future economic activity due to restrictions on mineral development.	Similar to C, except conducting validity exams and purchasing valid mining claims could significantly increase BLM costs.	Same as A.

Azure Cave	<u>Alternative A (Current)</u> There could be a significant loss of potential economic activity due to restrictions on mineral development and recreation use of the cave.	<u>Alternative B</u> There could be an increase in economic activity associated with mineral development.	<u>Alternative C</u> There could be a significant loss of potential future economic activity due to restrictions on mineral development.	<u>Alternative D</u> Increases in recreation-related economic activity may not offset losses in potential future economic activity due to restrictions on mineral development.	<u>Alternative E (Preferred)</u> Same as D.
Big Bend of the Milk River	<u>Alternative A (Current)</u> There could be a loss of potential future economic activity associated with recreation.	<u>Alternative B</u> Same as A.	<u>Alternative C</u> In The Phillips RA, there could be a 13% increase in recreation-related economic activity (\$592,000).	<u>Alternative D</u> Similar to C, except there could be a loss of potential future economic activity associated with oil and gas development.	<u>Alternative E (Preferred)</u> Same as C.

## IMPACTS TO SOCIAL CONDITIONS

All Issues	<u>Alternative A (Current)</u> Overall, this alternative would enhance the social well-being of affected ranchers, although some negative impacts would also occur. The overall effect to the social well-being of recreationists would be negative. The social well-being of some local businesses would be enhanced and for some it would decrease.	<u>Alternative B</u> Overall, this alternative would enhance the social well-being of affected ranchers, although some negative impacts would also occur. The overall effect to the social well-being of recreationists would be negative. The social well-being of some local businesses would be enhanced and for some it would decrease.	<u>Alternative C</u> Overall, this alternative would have both positive and negative effects on the social well-being of affected ranchers. The overall effect to the social well-being of recreationists would be positive. The social well-being of some local businesses would be enhanced and for some it would decrease.	<u>Alternative D</u> Overall, this alternative would decrease the social well-being of affected ranchers although some positive effects would also occur. The overall effect to the social well-being of recreationists would be positive. The social well-being of some local businesses would be enhanced.	<u>Alternative E (Preferred)</u> Overall, this alternative would have both positive and negative effects on the social well-being of affected ranchers. The overall effect to the social well-being of recreationists would be positive. The social well-being of some local businesses would be enhanced.
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