HEADWATERS RESOURCE AREA

RESOURCE MANAGEMENT PLAN/ ENVIRONMENTAL IMPACT STATEMENT

Butte District, Montana

NOVEMBER 1983

FINAL

United States Department of the Interior

Bureau of Land Management

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

P.O. Box 36800
222 North 32nd Street
Billings, Montana 59107

IN REPLY
REFER TO:

November 1983

Dear Reader:

Enclosed for your review and future reference is the final environmental impact statement (FEIS) for the Headwaters Resource Management Plan (RMP). This document also includes the proposed plan, which is a slightly modified version of the preferred alternative discussed in the draft RMP/EIS published in May 1983. The proposed plan incorporates all RMP-level guidance needed to resolve the eleven land management issues identified earlier in the planning process.

Although this plan continues to refer only to "the Headwaters Resource Area," it now involves the newly established Great Falls Resource Area as well. In April 1983, administrative responsibility for public land in Pondera, Teton, Cascade, Meagher, and the northern half of Lewis and Clark counties was transferred from the Headwaters Resource Area office of the Butte District to the Great Falls Resource Area office of the Lewistown District. This transfer of responsibilities was a direct result of the merger of the BLM and the former Minerals Management Service. The net result of these changes is that two offices, rather than one, will be responsible for implementation and monitoring of the Headwaters RMP.

With the exception of the recommendations for the Black Sage and Yellowstone River Island Wilderness Study Areas, all parts of this proposed plan may be protested. Protests should be sent to the Director (202), Bureau of Land Management, 1800 C Street NW, Washington, DC, 20240, prior to December 31, 1983—the end of the thirty-day protest period—and should include the following information:

The name, mailing address, telephone number, and interest of the person filing the protest.

A statement of the issue or issues being protested.

A statement of the part or parts of the plan being protested.

A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record.

A concise statement explaining why the proposed decision is believed to be wrong.

At the end of the thirty-day protest period, the proposed plan, excluding any portion under protest, will become final. Approval will be withheld on any portion of the plan under protest until final action has been completed.

Any significant change to the proposed plan made as a result of a protest will be made available for public review and comment prior to final approval and implementation.

I want to personally thank those of you who have contributed to and participated in the development of this plan. The Headwaters RMP is one of the first land use plans to be prepared under the BLM's new resource management planning procedures, and it has been a learning process for all of us. I hope your involvement will continue as we move forward into the implementation and monitoring phases of the Headwaters Plan, and also as we develop RMPs for other BLM lands in Montana and the Dakotas.

Sincerely yours,

Mike Penfold
State Director

FINAL

RESOURCE MANAGEMENT PLAN/ ENVIRONMENTAL IMPACT STATEMENT

For The

HEADWATERS RESOURCE AREA BUTTE DISTRICT MONTANA

Prepared By

BUREAU OF LAND MANAGEMENT
DEPARTMENT OF THE INTERIOR

Michael V. Penfold

STATE DIRECTOR
MONTANA STATE OFFICE

NOVEMBER 1983

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HEADWATERS RESOURCE AREA
RESOURCE MANAGEMENT PLAN/ ENVIRONMENTAL IMPACT STATEMENT

The Final Resource Management Plan/Environmental Impact Statement (RMP/EIS) addresses future management options for approximately 311,337 surface acres and 655,505 acres of federal mineral estate administered by the Bureau of Land Management through its Headwaters Resource Area office in Butte, Montana, and through its Great Falls Resource Area office in Great Falls, Montana. The plan primarily focuses on resolving eleven key resource management issues. These issues are: oil and gas leasing and development, grazing allotment and riparian habitat management, wilderness study recommendations, forest management, land ownership adjustments, mineral exploration and development, motorcycle use areas, motorized vehicle access, utility and transportation corridors, coal leasing in the Great Falls coal field, and special designations.

Four RMP alternatives are considered in detail in this document, which incorporates by reference much of the material presented in the Draft RMP/EIS. Alternative A, the proposed Resource Management Plan, represents a balance between resource production and environmental protection. Alternative B, the no action alternative, is a continuation of present management direction. Alternative C, environmental protection, represents an emphasis on maintaining or improving important environmental values. Alternative D, resource production, represents an emphasis on making public land and resources available for use and development. When the RMP is finalized, it will provide a comprehensive framework for managing and allocating public land during the next ten or more years. For further information, contact Lyle Fox, Headwaters Area Manager, Butte District Office, P.O. Box 3388, Butte, Montana 59702; Telephone (406) 494-5059, or contact Nancy Cotner, Great Falls Area Manager, 215 First Avenue North, P.O. Drawer 2865, Great Falls, Montana 59403, Telephone (406) 727-0503.

November 1983

HOW TO USE THE DOCUMENT

This is the Final Resource Management Plan (RMP)/Environmental Impact Statement (EIS) for the Headwaters Resource Area. The Draft RMP/EIS was sent out in May 1983.

CHANGES

This document includes changes in the sections entitled Summary; Introduction; Alternatives, Including the Proposed Action; Environmental Consequences, Alternative A; Consultation and Coordination; List of Preparers; and Appendixes A, B, E, H, and M. **These changes are highlighted in bold print.**

ADDITIONS

Additional sections have been added to the Final RMP/EIS that did not appear in the Draft. In the chapter entitled Public Comments, all substantive public comments on the Draft RMP/EIS are listed along with the BLM's response to such comments. Appendix V contains reprints of the actual letters received from the public. Appendix T gives the criteria for determining methods for selling public land. Appendix U is the errata for the sections of the Draft that were not reprinted in the Final.

REFERENCED SECTIONS OF THE DRAFT

The final RMP/EIS incorporates by reference the sections of the Draft entitled Affected Environment; Environmental Consequences, Alternatives B, C, and D; Appendixes C, D, F, G, I, J, K, L, N, O, P, Q, R, and S; Glossary; References; and Map Packet.

SUGGESTIONS FOR REVIEW

The Final RMP/EIS is organized for several levels of review.

- If a particular issue is of concern, you will find a brief summary of the issue in Chapter 1, Issues and Criteria; a discussion of how the issue would be resolved in each alternative in Chapter 2, Alternatives; a comparison of alternative outputs and allocations for each issue, also in Chapter 2, Alternatives; and comments and responses on the issue in Chapter 7, Public Comments.
- If a brief overview of the Final RMP/EIS is desired, you should review the sections entitled Summary, Issues and Criteria, and Alternatives.
- If a detailed study of the preferred alternative is required, you should review the Final RMP/EIS along with the incorporated sections of the Draft RMP/EIS and the Map Packet.

SUMMARY

This proposed Headwaters Resource Management Plan (RMP) and Final Environmental Impact Statement (EIS) addresses future management options for approximately 311,337 surface acres and 655,505 acres of federal mineral estate administered by the Bureau of Land Management (BLM) through its Headwaters Resource Area office in Butte, Montana. The Headwaters Resource Area encompasses nine counties in west-central Montana—Broadwater, Cascade, Gallatin, Jefferson, Lewis and Clark, Meagher, Park, Pondera, and Teton.

When approved, the Headwaters RMP will provide a comprehensive framework for managing and allocating public land and resources in the resource area during the next ten or more years. However, the RMP is primarily focused on resolving eleven key resource management issues. These issues are: oil and gas leasing and development, particularly along the Rocky Mountain Front; grazing allotment and riparian habitat management; wilderness study recommendations; forest management; land ownership adjustments; mineral exploration and development, particularly within the Scratchgravel Hills; motorcycle use areas; motorized vehicle access; utility and transportation corridors; coal leasing in the Great Falls Coal Field; and special designations, such as Outstanding Natural Areas.

Four RMP alternatives have been considered in detail during the development of this document. One represents no action, which means a continuation of present management direction. The other three alternatives provide a range of choices from those favoring resource protection to those favoring resource production.

The proposed Resource Management Plan incorporates portions of the no action, protection, and production alternatives, and generally represents a balance between resource production and environmental protection. The proposed RMP is essentially the same as the preferred alternative addressed in the Draft RMP/EIS, published in May 1983. However, changes have been made in response to public comments affecting the resolution of three issues: Forest Management, where commercial forest land adjacent to the Elkhorn Wildlife Management Area has been set aside from timber harvest, reducing the resource area's annual allowable cut from 2.65 mmbf to 2.4 mmbf; Land Ownership Adjustments, where 1,040 acres of public land previously included in the disposal and further study categories have been moved to the retention category; and Coal Leasing, where an additional 25 acres of federal coal in the Great Falls coal field have been identified for no surface occupancy stipulations. The allocations or outputs and environmental consequences that characterize the proposed RMP are summarized below.

ALTERNATIVE A

Alternative A is the preferred alternative.

Under Alternative A, oil and gas leasing and development would be permitted on 99,700 acres of federal mineral estate along the Rocky Mountain Front (84% of the total acreage available for consideration in that area), and on approximately 634,607 acres of federal mineral estate within the entire resource area (97% of the total). Oil and gas leasing and development within specific portions of the Rocky Mountain Front area would be subject to seasonal restrictions (49,500 acres) and to no surface occupancy stipulations (14,040 acres) to protect important grizzly bear and other wildlife habitat, and to prevent surface disturbance in the proposed Outstanding Natural Areas. Approximately 18,550 acres would not be available for leasing because of no surface occupancy restrictions that effectively prohibit oil and gas development. The remaining 36,160 acres along the Rocky Mountain Front would be leased subject only to standard stipulations.

Authorized livestock use in the resource area would be targeted for reductions in 19 allotments, for increases in 7 allotments, and for no change in 301 allotments. Target levels of adjusted livestock use would be based on range condition ratings and the Soil Conservation Service's *Montana Grazing Guides*. The net result of all adjustments in the resource area would be a 2,204 AUM (7%) short-term reduction in current authorized livestock use. In the long term, livestock use would be expected to increase to 33,417 AUMs, or 6% above current levels.

The estimated range improvements required to implement this alternative include: 2,560 acres of reseeding, 300 acres of prescribed burning, 62.2 miles of fence construction, 21 spring developments, 23.5 miles of pipeline, 20 stock tanks, 467.5 acres of noxious weed control, 11 cattleguards, and 5 other water developments. The estimated initial cost for all improvements is $449,331.

This alternative would result in a significant long-term improvement in ecological range condition. The percentage of the resource area in good and excellent condition would increase from 57% to 75%, while fair and poor condition ratings would decrease from 43% to 25%.

The long-term effect of this alternative on riparian habitat would be to increase the mileage of stream banks in satisfactory riparian condition from the current 104 miles to 130 miles.

None of the five areas currently under wilderness study would be recommended to Congress for wilderness designation. However, three of the areas (Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek), comprising 11,218 acres, would be proposed for Outstanding Natural Area designation and would be managed essentially as wilderness.

Forest resources under this alternative would be managed essentially as they are at present except for commercial forest land adjacent to the Elkhorn Wildlife Management Area, which would be set aside from timber harvest activities. The estimated potential timber yield for the resource area would be 24.0 million board feet per decade, well above the average actual harvest rate of approximately 1 million board feet per decade. Most of the public land in the resource area would be available for forest management activities; the only areas in addition to the Elkhorn area to be set aside from such activities would be the four proposed Outstanding Natural Areas along the Rocky Mountain Front, the proposed Sleeping Giant Area of Critical Environmental Concern, the Scratchgravel Hills, and the Yellowstone River Island. Commercial forestland in the Eightmile Creek, Boulder-Clancy, Marysville, and Rogers Pass areas would receive the highest priority for forest management activities. Special harvest restrictions would be applied in key elk seasonal use areas.

Under Alternative A, the land ownership adjustment issue would be resolved by establishing priority areas for retention and acquisition, disposal, and further study. Approximately 283,323 acres of public land within retention areas would remain in public ownership and be managed by the BLM. Approximately 25,317 acres of public land within disposal areas would be available for disposal through sales and/or exchanges, with exchange being the preferred method of disposal. The remaining 2,697 acres of public land within further study areas would not be prioritized at this time. All subsequent site-specific decisions regarding land ownership adjustments would be made based on criteria identified in the plan.

Future investments in public facilities and improvements, including land and access acquisition, generally would receive highest priority in retention areas. In the long term, Alternative A would result in a minor overall improvement in the land ownership pattern and the legal accessibility of public land in the resource area.

Mineral exploration and development in the resource area would not be significantly affected under this alternative. The withdrawal review program would continue, resulting in a projected future decrease of 11,587 acres of public land withdrawn from mineral entry. Approximately 613,486 acres (94%) of federal minerals in the resource area would be available for mineral entry and development in the long term.

Under this alternative, approximately 77,203 acres of public land, including the Scratchgravel Hills and the Limestone Hills, would be closed to organized motorcycle events. Approximately 234,134 acres, including the Hilger Hills, Spokane Hills, and Marysville areas, would remain available for further consideration. Applications for motorcycle events on public land within areas identified as available for further consideration would be evaluated on a case-by-case basis using criteria provided in the plan. The long-term effect of this alternative would be a minor decrease in the availability of public land for organized motorcycle events.

Alternative A would identify approximately 219,404 acres of public land as priority areas for motorized vehicle access restrictions, and 12,058 acres would be closed yearlong to motorized vehicle access. The remaining 79,875 acres would be open without restrictions. Public land within priority areas for restrictions generally will receive priority attention during travel planning. Specific roads, trails, or portions of such areas may be closed seasonally or yearlong to all or specific types of motorized vehicle use. Criteria provided in the plan would guide future site-specific motorized vehicle access decisions. The long-term effect of this alternative would be a minor decrease in the availability of public land for motorized vehicle access.

The utility and transportation corridor issue would be resolved by identifying approximately 74,489 acres of public land as avoidance areas, and 952 acres as windows. The remaining 235,896 acres of public land in the resource area would remain available for further consideration. Public land within avoidance areas generally would not be available for corridor development; public land within windows would be available. Criteria provided in the plan would guide future site-specific decisions regarding corridor development.

The preferred alternative would make all federal coal in the Great Falls Coal Field available for further consideration for leasing, pending further study. Approximately 25,452 acres of federal minerals, containing an estimated 125.6 million short tons of coal, would be affected. Approximately 1,780 acres would be identified for no sur-

face occupancy to protect public roads, rights-of-way, floodplains, and important wildlife habitat. All coal would be extracted by using underground mining methods.

Four Outstanding Natural Areas would be designated along the Rocky Mountain Front—Blind Horse Creek, Ear Mountain, Chute Mountain, and Deep Creek/Battle Creek. These four areas, comprising 12,058 acres of public land, would be managed to protect wildlife habitat, scenery, and other surface resource values from disturbance. In addition, 11,609 acres of public land in the Sleeping Giant area would be designated as an Area of Critical Environmental Concern, and would be managed with primary emphasis on the protection and enhancement of wildlife and recreation values. All remaining public land in the resource area, totalling 287,670 acres, would continue to be managed without special designation.

Air quality would not be significantly affected by this alternative, watershed conditions would improve moderately, and water quality would increase slightly in the long term.

Neither developed recreation opportunities, visual quality, nor cultural resources would be significantly affected by this alternative. There would be a minor increase in dispersed, nonmotorized recreation opportunities.

Under this alternative, all categories of wildlife habitat would either improve in condition, or would be essentially unaffected. The most significant improvement would occur in grizzly bear, riparian, waterfowl, and fisheries habitats. Moderate levels of improvement would occur in elk, bighorn sheep, mule deer, gray wolf, bald eagle, and upland game bird habitats.

The short-term adjustments in livestock use proposed under this alternative would result in moderately significant economic impacts—both positive and negative—for the affected ranch operators. In the long term, the expected increases in livestock forage availability would result in moderately significant positive economic impacts to affected operators. The net overall impact of this alternative on the regional economy and attitudes is expected to be insignificant.

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PURPOSE AND NEED

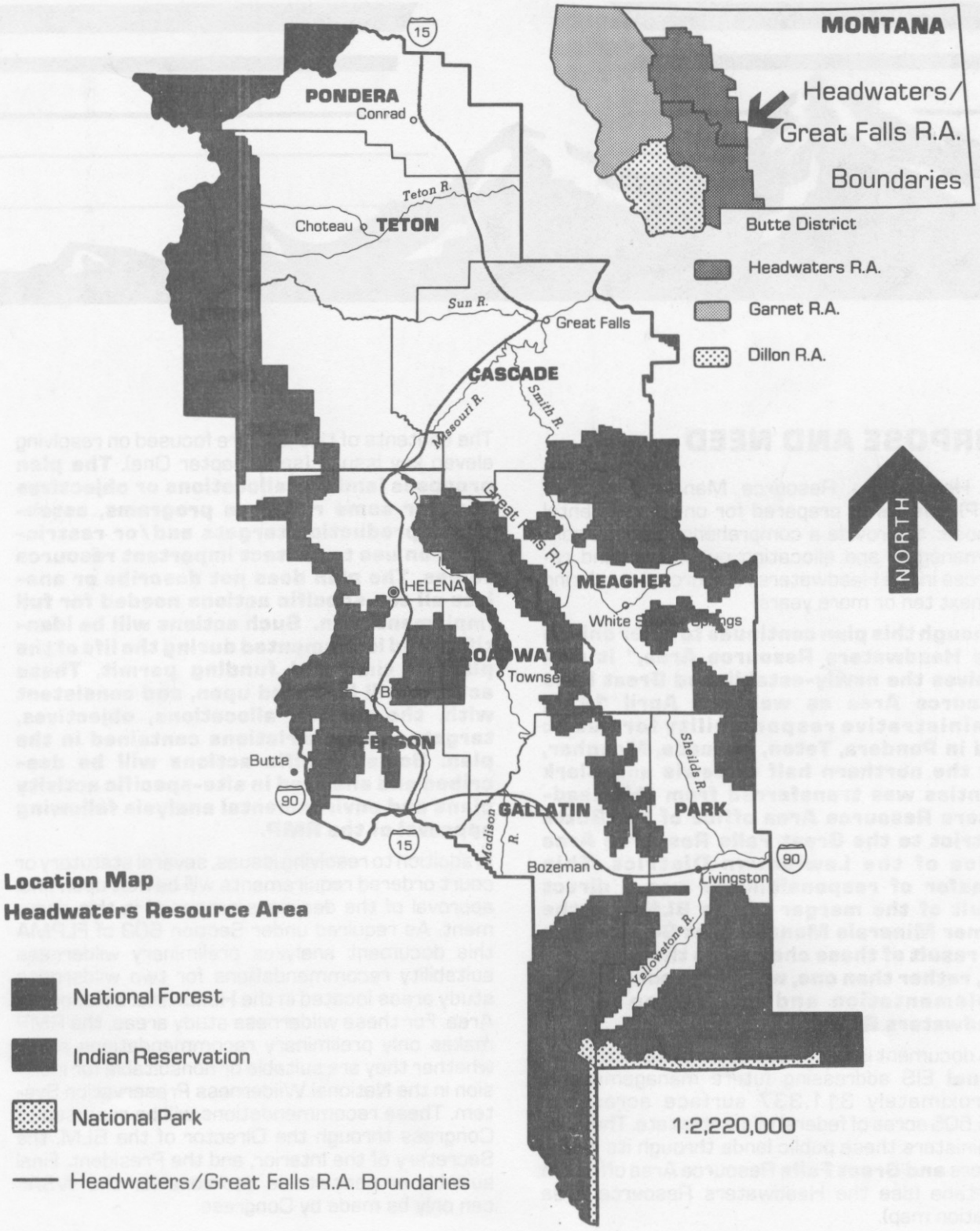
The Headwaters Resource Management Plan (RMP) **has been** prepared for one fundamental purpose: to provide a comprehensive framework for managing and allocating public land and resources in the Headwaters Resource Area during the next ten or more years.

Although this plan continues to refer only to "the Headwaters Resource Area," it now involves the newly-established Great Falls Resource Area as well. In April 1983, administrative responsibility for public land in Pondera, Teton, Cascade, Meagher, and the northern half of Lewis and Clark counties was transferred from the Headwaters Resource Area office of the Butte District to the Great Falls Resource Area office of the Lewistown District. This transfer of responsibilities was a direct result of the merger of the BLM and the former Minerals Management Service. The net result of these changes is that two offices, rather than one, will be responsible for implementation and monitoring of the Headwaters RMP.

This document includes both a proposed RMP and a **final** EIS addressing future management of approximately 311,337 surface acres and 655,505 acres of federal mineral estate. The BLM administers these public lands through its Headwaters **and Great Falls** Resource Area offices in Montana (see the Headwaters Resource Area Location map).

The contents of this plan are focused on resolving eleven key issues (see Chapter One). **The plan proposes land use allocations or objectives and, for some resource programs, establishes production targets and/or restrictions on use to protect important resource values. The plan does not describe or analyze all the specific actions needed for full implementation. Such actions will be identified and implemented during the life of the plan as time and funding permit. These actions will be based upon, and consistent with, the various allocations, objectives, targets, and restrictions contained in the plan. Some specific actions will be described and analyzed in site-specific activity plans and environmental analysis following approval of the RMP.**

In addition to resolving issues, several statutory or court ordered requirements will be met upon final approval of the decisions proposed in this document. As required under Section 603 of FLPMA this document analyzes preliminary wilderness suitability recommendations for two wilderness study areas located in the Headwaters Resource Area. For these wilderness study areas, the RMP makes only preliminary recommendations as to whether they are suitable or nonsuitable for inclusion in the National Wilderness Preservation System. These recommendations will be reported to Congress through the Director of the BLM, the Secretary of the Interior, and the President. Final suitable or nonsuitable decisions for the WSAs can only be made by Congress.


MONTANA
Headwaters/
Great Falls R.A.
Boundaries
Butte District
Headwaters R.A.
Garnet R.A.
Dillon R.A.
PONDERA
Conrad
Teton R.
Choteau
TETON
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1:2,220,000

The document also analyzes alternatives for livestock grazing on public land as required under a court ordered agreement based on a 1973 lawsuit filed against the BLM by the Natural Resources Defense Council.

In addition, this planning action serves to consolidate and update land use planning guidance currently contained in eleven separate Management Framework Plans that were prepared prior to the establishment of the Headwaters Resource Area in 1976. In some cases the existing management framework plans consist of partially completed documents that were never formally adopted by the BLM. Thus, for some portions of the Headwaters Resource Area, this RMP will provide the first comprehensive management guidance to be approved by the BLM.

PLANNING PROCESS OVERVIEW

The BLM resource management planning process consists of nine basic steps (we are now at Step **8**) and requires the use of an interdisciplinary team for the completion of each step. The planning steps described in the regulations and used in preparing this plan are described below and are graphically summarized in Figure I-1.

Step 1. Identification of Issues

This step is intended to identify resource management problems or conflicts that can be resolved through the planning process.

Step 2. Development of Planning Criteria

During this step preliminary decisions are made regarding the kinds of information needed to clarify the issues, the kinds of alternatives to be developed, and the factors to be considered in evaluating alternatives and selecting a preferred resource management plan.

Step 3. Inventory Data and Information Collection

This step involves the collection of various kinds of issue-related resource, environmental, social, economic, or institutional data needed for completion of the process.

Step 4. Analysis of the Management Situation

This step calls for a deliberate assessment of the current situation. It includes a description of current BLM management guidance, a discussion of existing problems and opportunities for solving them, and a consolidation of existing data that is needed to analyze and resolve the identified issues.

Step 5. Formulation of Alternatives

During this step several complete, reasonable resource management alternatives are prepared; including one for no action and several that strive to resolve the issues while placing emphasis either on environmental protection or resource production.

Step 6. Estimation of Effects of Alternatives

The physical, biological, economic, and social effects of implementing each alternative are estimated in order to allow for a comparative evaluation of impacts.

Step 7. Selection of the Preferred Alternative

Based on the information generated during Step 6, the District Manager identifies a preferred alternative. The draft RMP/EIS document is then prepared and distributed for public review.

Step 8. Selection of the Resource Management Plan

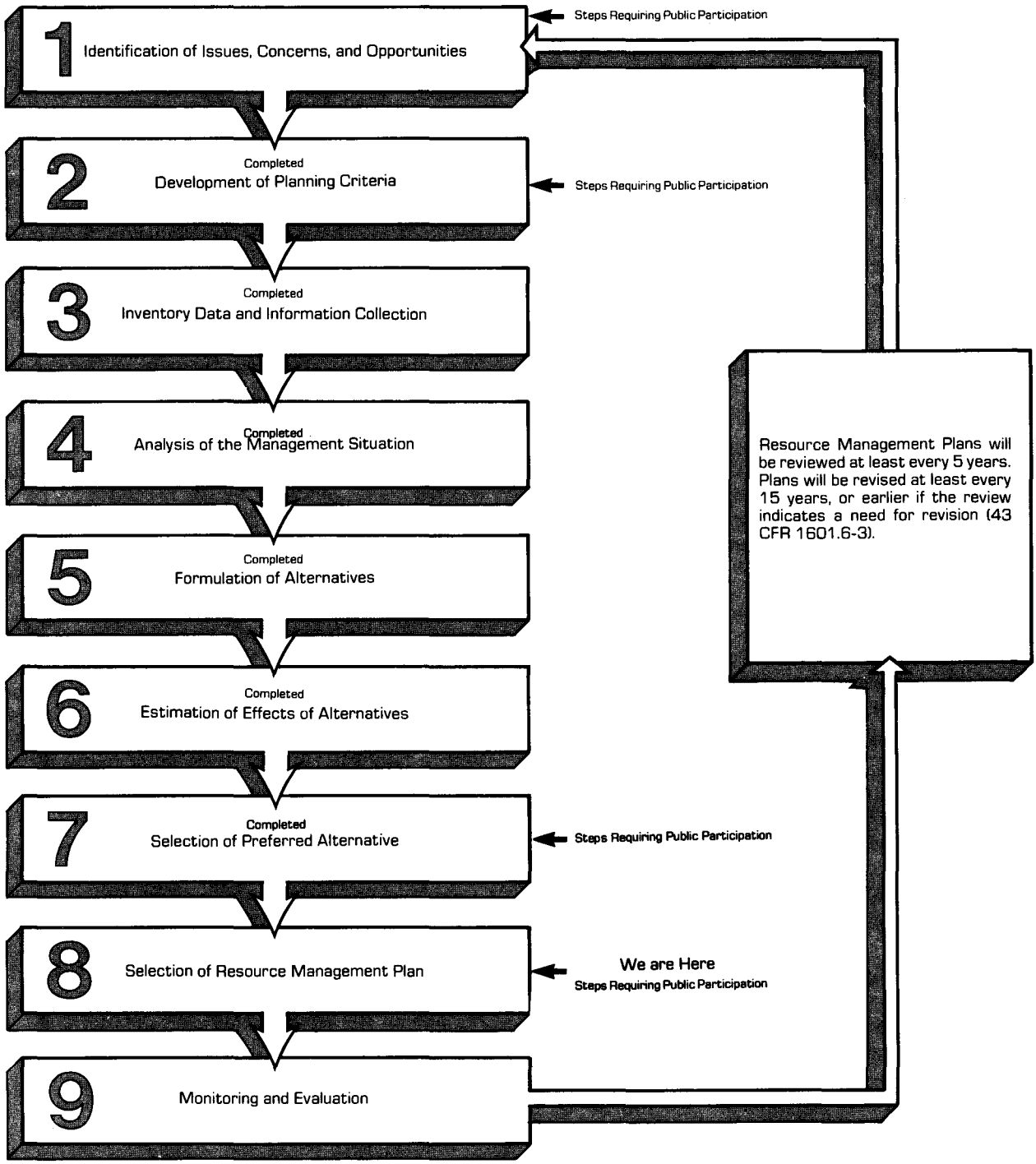
Based on the results of public review and comment, the District Manager selects a proposed resource management plan and publishes it along with a final EIS. A final decision is made after a thirty-day protest period on the final EIS.

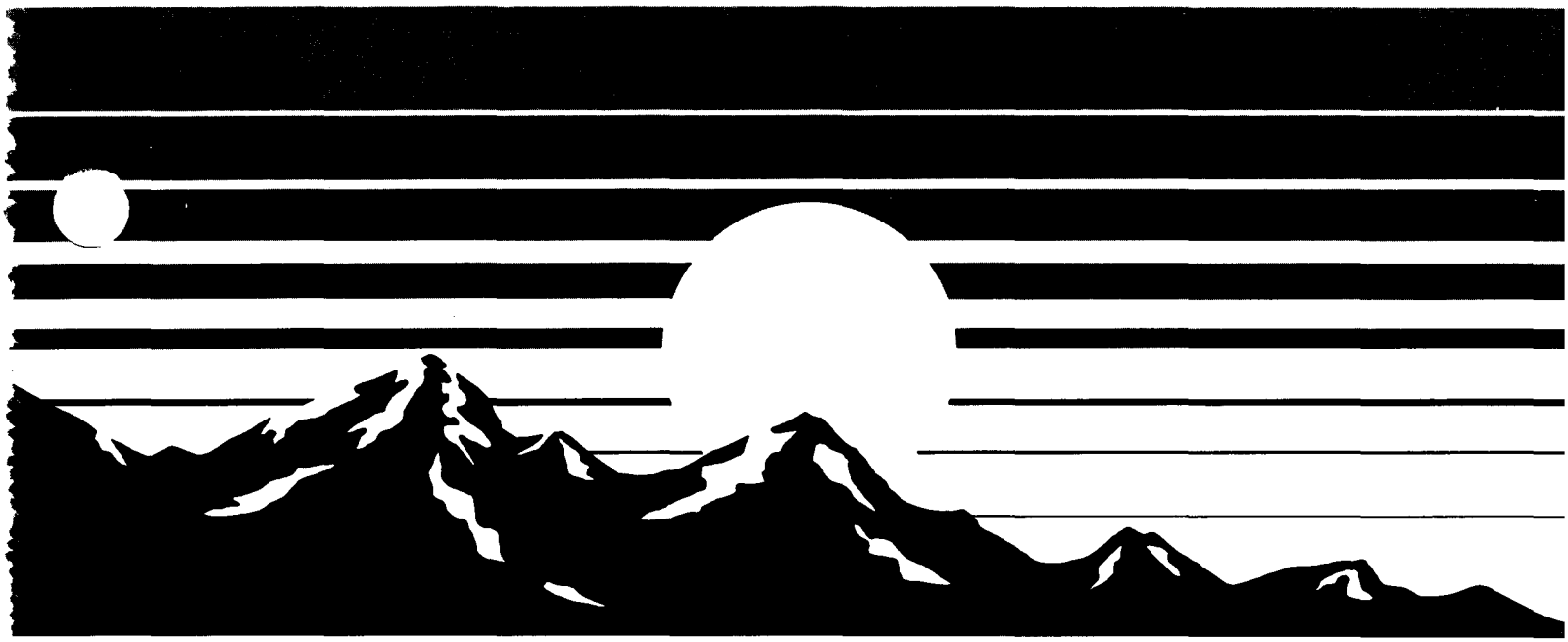
Step 9. Monitoring and Evaluation

This step involves the collection and analysis of long-term resource condition and trend data to determine the effectiveness of the plan in resolving the identified issues and to assure that implementation of the plan is achieving the desired results. Monitoring continues from the time the RMP is adopted until changing conditions require a revision of the whole plan or any portion of it.

FIGURE I-1

Steps in the Resource Management Planning Process





ISSUE-DRIVEN PLANNING

The BLM planning regulations generally equate land use planning with problem solving or, in other words, with issue resolution. An issue may be defined as an opportunity, conflict, or problem regarding the use or management of public lands and resources. Obviously not all issues can be resolved through land use planning but may instead require changes in policy, budgets, or legislation.

As a practical matter, issue-driven planning means that only those aspects of current management direction that are felt to be at issue are examined through the formulation and evaluation of alternatives. Alternatives are not developed for those aspects of current management direction that are felt to be satisfactory.

ISSUES ADDRESSED IN THE HEADWATERS RMP

Eleven issues are addressed in this document. These issues were identified based on the judgment of planning team members, interagency consultation, public input, and review by BLM managers.

Issue 1: Oil and Gas Leasing and Development

Special attention is needed in the Rocky Mountain Front to reduce the likelihood of future conflicts between oil and gas activities and other important resource uses and values. The principal considerations in the Rocky Mountain Front include grizzly bear, wolf, bighorn sheep, mule deer, and elk habitats and social and economic values. Needed decisions include:

What public land should be made available for oil and gas leasing and development?

What special stipulations would be needed to accommodate such use?

Issue 2: Grazing Allotment and Riparian Habitat Management

Management changes appear to be needed in some livestock grazing allotments in order to reduce conflicts between livestock grazing and other important resource uses and values. Such conflicts typically involve elk and mule deer habitat, riparian areas, and/or sensitive watersheds. In the Rocky Mountain Front, grizzly bear and bighorn sheep habitats are also resources of special concern. Riparian habitat is considered particularly important because of its relationship to watershed protection, water quality, fisheries habitat, and terrestrial wildlife habitat diversity. Resolution of this issue should satisify the requirements of the court-ordered agreement between the BLM and the Natural Resource Defense Council, thus responding to litigation filed in 1973. Needed decisions include:

How should grazing allotments be categorized for selective management?

What allotment-specific objectives should be established to guide future grazing management decisions?

What allotments will require further activity planning, such as allotment management plans, and according to what priorities?

What short-term adjustments in livestock forage allocations may be needed to meet management objectives?

What condition objectives should be established for riparian habitat areas?

Issue 3: Wilderness Study Recommendations

The Headwaters Resource Area includes two BLM Wilderness Study Areas (WSAs) and three other areas being studied for possible wilderness designation. All areas must be studied through the BLM planning process to determine whether they are to be recommended to Congress as suitable or nonsuitable for designation as wilderness. Primary considerations include the protection of wilderness values, manageability, and the value of the energy, mineral, range, timber, and recreation resources in the areas. Needed decisions include:

How much of the public land in each area should be recommended to Congress as suitable for wilderness designation?

How will each area be managed if it is not designated as wilderness?

Issue 4: Forest Management

Special attention is needed to identify portions of the Headwaters Resource Area that are suitable for producing forest products and to assure that other important resource uses and values are adequately protected. Principal considerations include areas being studied for wilderness; grizzly bear, elk, moose, and mule deer habitat; recreation values; sensitive watersheds; land ownership patterns; and timber values. Needed decisions include:

What public land should be made available for the harvest of forest products?

What stipulations and support actions would be needed to accommodate such use?

What areas will require further activity planning, such as compartment management plans?

Issue 5: Land Ownership Adjustments

Special attention is needed to identify those portions of the Headwaters Resource Area where land ownership adjustments are needed to achieve more efficient management and utilization of public resources. Adjustments include exchanges, sales, transfers, and acquisition. Principal considerations include public resource values, current use, location, proximity to other agencies, manageability, and compatibility with adjacent land uses. Needed decisions include:

What public land should be disposed of; what land should be retained in public ownership; and what land requires further study?

Issue 6: Mineral Exploration and Development

Special attention is needed to reduce, if possible, the potential for future impacts from mining on other important resource values in the Scratchgravel Hills. The BLM presently has only limited authority to regulate mining activity on mining claims. However, opportunities do exist to withdraw certain public land in the Scratchgravel Hills from additional mineral entry in order to protect groundwater quality, open-space values, and other important resource values. The principal considerations include mineral potential, water quality, visual resources, property values, and other open-space values. The decision needed is:

What public land, if any, should be withdrawn from mineral entry in order to protect groundwater quality, and open-space and other resource values?

Issue 7: Motorcycle Use Areas

The demand for motorcycle race areas in the Helena Valley and the Limestone Hills appears to be high. Public land could be used to accommodate at least part of such demand. However, off-road motorcycle use in certain areas could result in unacceptable impacts to wildlife habitat, watershed values, other public land users, and adjacent residential and agricultural property owners. Special attention is needed to identify, if possible, appropriate motorcycle use areas on public land in the Helena Valley and the Limestone Hills. Primary considerations include sensitive watersheds, wildlife habitat, compatibility with adjoining land uses, and conflicts with other users. Specific areas of use or interest include the Scratchgravel Hills, Hilger Hills, Spokane Hills, Montana City, Marysville, and the Limestone Hills. The decision needed is:

How should public land be allocated for motorcycle racing?

Issue 8: Motorized Vehicle Access

In portions of the Limestone Hills and the Helena Valley, current levels of motorized vehicle use are resulting in conflicts with wildlife, range users, and adjacent landowners. Special attention is needed to identify appropriate levels of motorized access for these areas. Principal considerations include sensitive watersheds, wildlife habitat, compatibility with adjoining land uses, and conflicts with other users. Specific areas of concern include the Scratchgravel Hills, Hilger Hills, and Limestone Hills. The decision needed is:

> What public land, if any, should be designated as restricted or closed to motorized vehicle access?

Issue 9: Utility and Transportation Corridors

Special attention is needed to assure that public land located in the logical path of linear energy and transportation facilities remains available for use and that such development does not result in undesirable impacts to other important resource uses and values. The primary areas of interest include the Sleeping Giant and Devils Kitchen areas, the Helena Valley, and Jefferson and western Broadwater counties. Principal considerations include visual and recreation resources, fish and wildlife habitat, wilderness values, and compatibility with adjoining land uses. The decisions needed include:

> What public land should be excluded from future routing of major utility and transportation corridors?
>
> What public land should be avoided, if possible, during future routing of major utility and transportation corridors?
>
> What special stipulations would be necessary if such avoidance areas were to be crossed?
>
> What public land should remain available for future corridor development?

Issue 10: Coal Leasing

Special attention is needed to determine the suitability of federal coal for possible future consideration of coal leasing in the Great Falls Coal Field. This area has been subject to underground mining in the past and could be a source of fuel for a coal-fired power plant expected to be built in the Great Falls area during the next decade. Principal considerations include wildlife habitat, recreation values along the Smith River, and social and economic values. The decision needed is:

> What portion of the Great Falls Coal Field should be made available for further consideration of coal leasing?

Issue 11: Special Designations

Public land and resources along the Rocky Mountain Front and in the Sleeping Giant area may warrant special management attention and public recognition through such special designations as Area of Critical Environmental Concern and Outstanding Natural Area. Principal considerations include the effects such designations would have in providing additional management emphasis for the protection of important surface values (primarily wildlife and recreation) and the possible loss of resource development opportunities. Needed decisions include:

> What public land, if any, should be included within a special designation?
>
> How should such areas be managed?

PLANNING CRITERIA

Planning criteria were developed and revised at several points during the planning process to assure that the planning steps focused on the issues. Planning criteria were used to guide resource inventories, to establish an outline for the management situation analysis, to aid in formulating alternatives, and to highlight factors to be considered in evaluating alternatives and selecting a preferred alternative.

The various criteria used are available for review at the Headwaters Resource Area office.

Alternative Formulation Criteria

The criteria developed for alternative formulation are as follows:

> All alternatives will assume a continuation of oil and gas leasing as recommended in the Butte District Oil and Gas Environmental Assessment. However, the level of leasing and the kinds of stipulations required may be different.
>
> All alternatives for the Rocky Mountain Front will provide at least minimum levels of protection for the habitat of threatened and endangered species, as required by the Endangered Species Act.
>
> All alternatives will assume a continuation of existing interagency cooperative agreements.

At least one alternative will be developed that ensures that sufficient forage is available on grizzly bear spring/summer habitat and bighorn sheep winter/spring habitat to maintain or achieve at least a satisfactory habitat rating.

At least one alternative will be developed that strives to maintain or improve crucial wildlife habitat and to minimize disruptions to existing livestock operators.

At least one alternative will consider increasing livestock use in those allotments that have additional forage available after other consumptive and nonconsumptive needs have been met.

The no action alternative, which constitutes the existing management direction, will be considered the initial proposed action for livestock grazing in all allotments. The BLM's preferred alternative, which is based on rangeland monitoring and consultation with permittees, may differ from the initial proposed action (no action alternative).

Three alternatives will be considered in detail for each area being studied for wilderness—all wilderness, no wilderness, and no action.

All alternatives will, at a minimum, provide for maintaining riparian habitat in current condition.

At least one alternative will be developed with the objective of improving unsatisfactory riparian habitat conditions to satisfactory, to the extent practicable.

All alternatives will be reasonable and attainable.

At least one alternative will be developed which addresses the following land ownership adjustments:

retention of public land in the Rocky Mountain Front and Limestone Hills,
retention and/or acquisition of land in Jefferson and western Broadwater counties and the Sleeping Giant area, and
disposal of scattered tracts with low resource values.

At least one alternative will consider a mineral withdrawal in the Scratchgravel Hills to reduce the potential for future impacts from mining on other resources.

At least one alternative will strive to balance the need for motorcycle race areas with protection of other resource uses and values.

At least one alternative will strive to balance the need for motorized access with protection of other resource uses and values.

At least one alternative will strive to balance the need for corridor development with the protection of other resources and values.

All alternatives will assume continued National Guard use at existing levels.

At least one alternative will be based on application of the coal unsuitability criteria, multiple use conflict resolution, and social and economic considerations regarding development of federal coal in the Great Falls Coal Field.

Evaluation Criteria

The criteria that were used to evaluate alternatives are as follows:

social and economic impacts;

consistency with federal, state, and local plans;

management efficiency or effectiveness;

availability of public land for use and development, including:

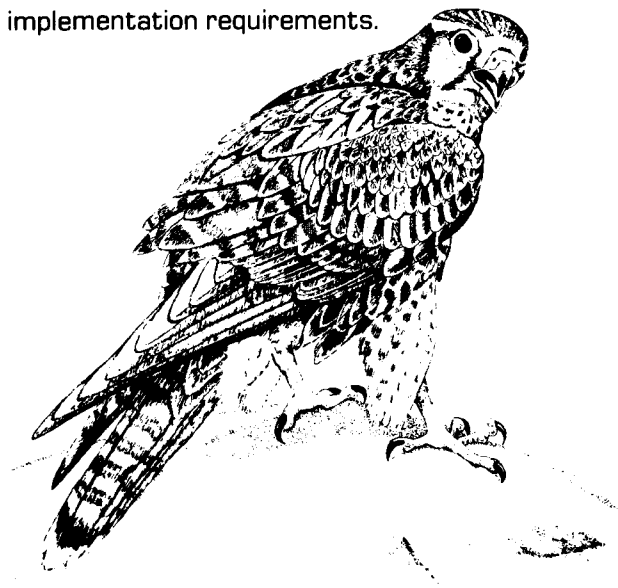
oil and gas leasing,
livestock forage allocations,
locatable minerals,
timber harvest,
utility and transportation corridors, and
coal leasing;

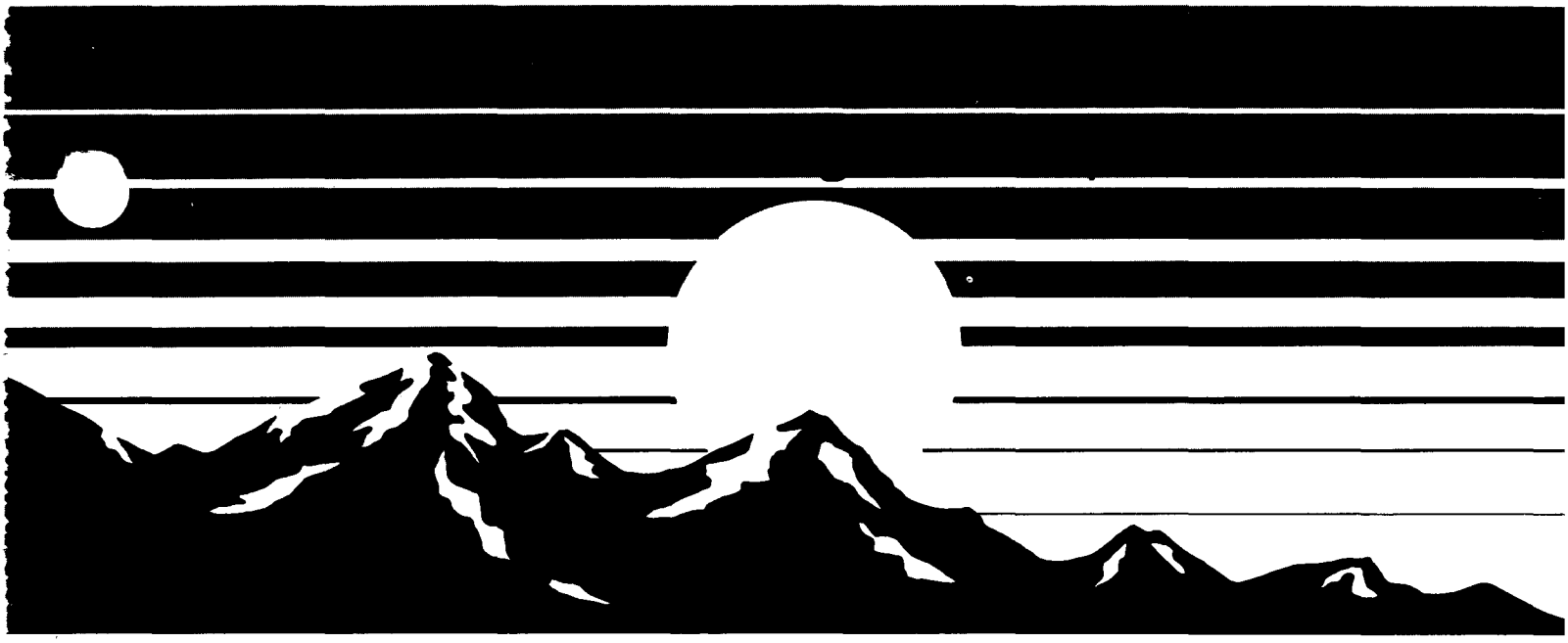
impacts on surface values:

wildlife habitat condition,
wilderness characteristics,
watershed/water quality,
range vegetation condition, and
recreation opportunities;

compatibility with adjoining land uses; and

implementation requirements.





ALTERNATIVE FORMULATION OVERVIEW

Both the National Environmental Policy Act (NEPA) regulations and the BLM resource management planning regulations require the formulation of alternatives. Each alternative represents a complete and reasonable plan to guide future management of public land and resources. One alternative must represent no action. This means a continuation of present levels or systems of resource use. The other alternatives are to provide a range of choices from those favoring resource protection to those favoring resource production.

The basic goal in formulating RMP alternatives is to identify various combinations of public land uses and resource management practices that respond to the planning issues. Alternatives for the resolution of most planning issues, including, for example, oil and gas leasing on the Rocky Mountain Front, were formulated by placing varying degrees of emphasis on resource protection (e.g. threatened and endangered species habitat) or resource production (e.g. minimizing restrictions on oil and gas leasing and development). **All alternatives must prevent unnecessary and undue degradation, maintain resource productivity, and permit a sustained yield of resources.**

Alternatives for the resolution of the land ownership adjustment issue do not lend themselves to protection or production emphases, but instead were formulated by applying the interdisciplinary criteria for land retention and disposal as identified in the Draft State Director Guidance for Resource Management Planning. These criteria were derived from applicable laws, regulations, and BLM policy statements. In this case, two alternatives were formulated, no action (i.e. no criteria were applied) and the proposed action.

In summary, issues dictated the way in which alternatives were formulated. Lands, resources, and programs administered by the BLM are proposed for changes in management based on the preferred means of resolving all issues. Those lands, resources, and programs not affected by the resolution of any issue will be managed in the future essentially as they are at present. Future changes will be permitted based on case-by-case analyses and in accordance with applicable laws, regulations, and policies.

ALTERNATIVES ELIMINATED FROM DETAILED STUDY

The following alternatives were considered as possible methods of resolving specific issues in the Headwaters Resource Area, but were eliminated from detailed study due to technical, legal, and/or other constraints.

No Grazing

The elimination of livestock grazing from all public land in the resource area was considered as a possible method of resolving the grazing allotment and riparian habitat management issue. Based on interdisciplinary discussions during the criteria development step of the planning process, the no grazing alternative was eliminated from detailed study for the following reasons:

1. Resource conditions, including range vegetation, watershed, and wildlife habitat, do not warrant a resource areawide prohibition of livestock grazing.

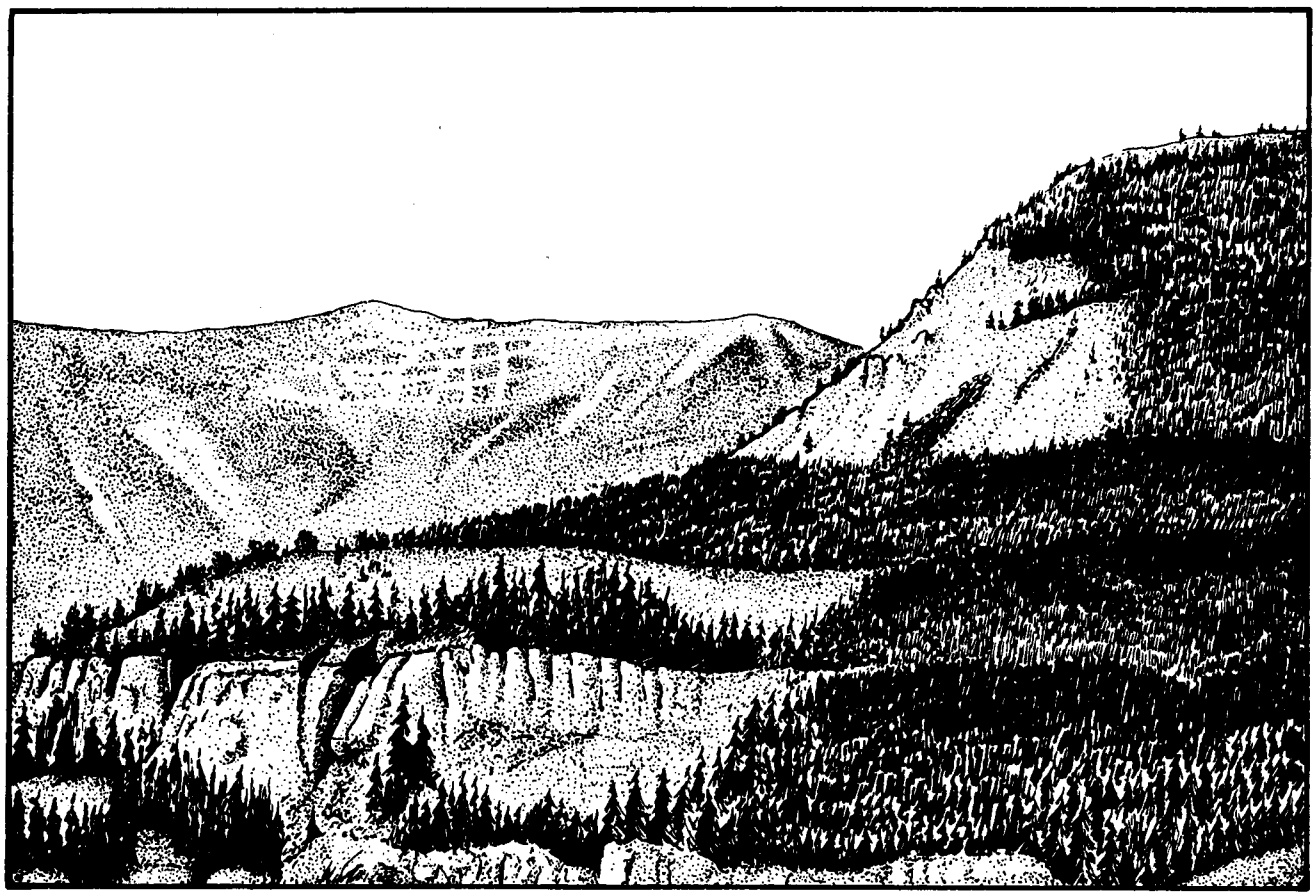
2. Public comments received during the issue identification and criteria development steps indicate a general acceptance of livestock grazing on public land, provided that such grazing is properly managed.

3. The highly fragmented pattern of public land ownership in the resource area would necessitate extensive fence construction, at public expense, if livestock are to be effectively excluded from public land. Such fencing would not only be prohibitively costly, but also would be likely to disrupt established patterns of wildlife movement, and could also affect public access.

In summary, implementation of a no grazing alternative is not considered to be feasible or necessary except in specific, localized situations where livestock use is incompatible with other important management objectives. Such situations have been identified in the plan under the discussion of unleased tracts (Chapter 2) and in Appendix E.

Partial Wilderness Designation for Individual Areas Being Studied for Wilderness

This alternative was considered for each area. However, because of their size, configuration, topographic layout, and resource characteristics, none of the areas were found to have logical partial wilderness alternatives.



Sequential Oil and Gas Leasing and Development in the Rocky Mountain Front

This alternative was considered as a possible means of permitting relatively unrestricted oil and gas exploration and development in the Rocky Mountain Front, while retaining adequate habitat for the protection of threatened and endangered and other important species of wildlife. Under this alternative, the Rocky Mountain Front would have been divided into four oil and gas leasing zones, with leasing and development occurring in alternating zones. For example, during the period 1985 to 1995, leasing and development would occur with minimal restrictions in zones one and three, while zones two and four would be considered unavailable for leasing. During the period 1995 to 2005, the zones would be reversed. This alternative was eliminated from detailed study because the intermingled private, state, and federal subsurface ownership in each zone does not permit the establishment of secure lease denial areas. In addition, the delineation of such zones in the absence of adequate geologic data is likely to result in severe technical problems affecting oil and gas exploration and reservoir drainage.

ACEC Designations in the Rocky Mountain Front

This alternative was considered for public land in the vicinity of Blind Horse Creek, Ear Mountain, Chute Mountain, and Deep Creek/Battle Creek. All these areas appear to meet the criteria of relevance and importance established for the identification of potential Areas of Critical Environmental Concern.

However, the particular resources of primary concern along the Rocky Mountain Front, i.e. scenic values, wildlife habitat, unique geologic features, primitive recreation opportunities, and natural ecosystems, are considered to be of national significance. Therefore, the special designation of Outstanding Natural Area, which requires the Director's approval, was chosen as more appropriate for consideration in a special designation alternative. Management would be similar under either designation.

Jurisdictional Land Transfers to the Forest Service

This alternative was considered for BLM-administered land contiguous to national forests. It was eliminated from detailed study in this RMP because it would unnecessarily duplicate other jurisdictional transfer studies currently being conducted by both agencies.

Maximum Unconstrained Alternatives

No alternatives that proposed maximum resource areawide production or protection of one resource at the expense of other resources were considered because this would violate the BLM's legal mandate to manage public land on a multiple use, sustained yield basis.

DELINEATION OF MANAGEMENT UNITS

The Headwaters Resource Area has been divided into thirty-six management units. These management units are displayed on the Management Units map in the back pocket. Each management unit is described in Appendix A.

Management unit boundaries separate areas which, because of different issues, resource values, and/or management opportunities or constraints, require different management guidance. The boundaries are not absolutely fixed, and may be adjusted in the future on the basis of additional information gained during the formulation of activity plans.

Each management unit has one set of management guidelines for each alternative, although for most units, some management guidelines may be identical for two or more alternatives. Management unit guidelines, along with the resource areawide guidance common to all alternatives, define what the total management direction is and how it will be implemented.

In some cases the preferred management guidelines for wilderness study areas that are not recommended for wilderness are inconsistent with the Interim Management Policy for WSAs. The implementation of those guidelines will be deferred until Congress takes action on the wilderness suitability recommendations.

MANAGEMENT GUIDANCE COMMON TO ALL ALTERNATIVES

The following management guidance is applicable to, and thus constitutes a part of, all alternatives considered in detail. It is presented here to avoid repetition.

Soil, Water, and Air Program

General

Soil, water, and air resources will continue to be evaluated on a case-by-case basis as a part of project level planning. Such an evaluation will consider the significance of the proposed project and the sensitivity of soil, water, and air resources in the affected area. Stipulations will be attached as appropriate to ensure compatibility of projects with soil, water, and air resource management. Appendix C shows an example of general Best Management Practices (BMPs) adopted for forestry activities.

Soils

Soils will be managed to maintain productivity and to minimize erosion.

Water

Water quality will be maintained or improved in accordance with State and Federal standards, including consultation with State agencies on proposed projects that may significantly affect water quality. Management actions on public land within municipal watersheds will be designed to protect water quality and quantity.

Management activities in riparian zones will be designed to maintain or improve riparian habitat condition.

Roads and utility corridors will avoid riparian zones to the extent practicable.

Energy and Minerals Program

Oil and gas leasing in the Sun River Game Range on the Rocky Mountain Front will continue to be denied, in accordance with the Secretary's classification agreement of January 29, 1964, which closed the 10,952 acres of federal minerals within the Sun River Game Range to oil and gas leasing. The agreement is based on a finding by the Bureau of Land Management, the Fish and Wildlife Service, and the MDFW&P that oil and gas leasing is not compatible with the purposes for which the Sun River Game Range was originally withdrawn.

Oil and gas lease stipulations identified in this plan will apply only to leases processed after RMP approval. Existing leases will run their full term with only those stipulations attached at the time of lease issuance. Leases included in an operating unit or any future unit where production is established will remain unaffected by new stipulations as long as production continues or until leases are terminated.

Oil and Gas Leasing Outside of the Rocky Mountain Front

As a general rule, public land outside of the Rocky Mountain Front is available for oil and gas leasing. In many areas, oil and gas leases will be issued with only standard stipulations attached. In other areas, leases will have special stipulations attached to them at the time of issuance to protect seasonal wildlife habitat and/or other sensitive resource values. In highly sensitive areas, where special stipulations are not sufficient to protect important surface resource values, no surface occupancy stipulations will be attached to the lease. The general areas where standard, special, and no surface occupancy stipulations will be applied are shown on the Management Units map. However, site-specific decisions regarding lease issuance and the attachment of appropriate stipulations will continue to be based on application of the Butte District Oil and Gas Leasing Checklist, and the leasing guidelines contained in the Butte District Oil and Gas Leasing Environmental Assessment. Standard and special stipulations and the Butte District Oil and Gas Leasing checklist are included in Appendix B.

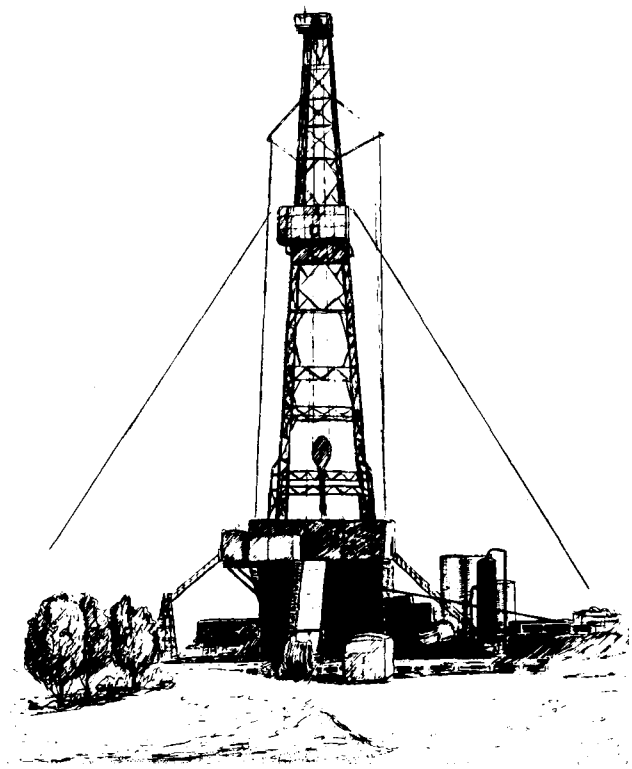
Geothermal Leasing

Lease applications will continue to be processed as received. Stipulations will be attached based on interdisciplinary review of each proposal.

Locatable Minerals Outside of the Scratchgravel Hills

All public land is open to mineral entry and development unless previously withdrawn. Mineral exploration and development on public land will be regulated under 43 CFR 3800 to prevent unnecessary and undue degradation of the land. Validity examinations may be requested under the following conditions:

- where a mineral patent application has been filed and a field examination is required to verify the validity of the claim(s);
- where there is a conflict with a disposal application, and it is deemed in the public interest to do so, or where the statute authorizing the disposal requires clearance of any encumbrance;



- where the land is needed for a federal program; or
- where a mining claim is located under the guise of the mining law and flagrant unauthorized use of the land or mineral resource is occurring.

Public land will be opened to mineral entry where mineral withdrawals are revoked through the withdrawal review process.

Common Variety Mineral Materials

Applications for the removal of common variety mineral materials, including sand and gravel, will continue to be processed on a case-by-case basis. Stipulations to protect important surface values will be attached based on interdisciplinary review of each proposal.

Lands Program

Land Ownership Adjustments

Draft State Director Guidance for Resource Management Planning in Montana and the Dakotas, published in January 1983, provides criteria for use in categorizing public land for retention or disposal, and for identifying acquisition priorities. Site-specific decisions regarding land ownership adjustments in the resource area will be made based largely on consideration of the following criteria which are derived from State Director Guidance.

This list is not considered all-inclusive, but represents the major factors to be evaluated. These criteria may be modified in the future to assure consistency with State Director Guidance. The criteria to be used include:

public resource values, including but not limited to:

T&E and sensitive species habitat,
riparian areas,
fisheries,
nesting/breeding habitat for game animals,
key big game seasonal habitat,
developed recreation and recreation access sites,
class A scenery,
municipal watersheds,
energy and mineral potential,
sites eligible for inclusion on the National Register of Historic Places,
wilderness and areas being studied for wilderness, and
other statutorily-authorized designations,

accessibility of the land for public uses;

amount of public investments in facilities or improvements and the potential for recovering those investments;

difficulty or cost of administration (manageability);

suitability of the land for management by another federal agency;

significance of the decision in stabilizing business, social and economic conditions, and/or lifestyles;

encumbrances, including but not limited to:
R&PP and small tract leases,
withdrawals, or
other leases or permits

consistency of the decision with cooperative agreements and plans or policies of other agencies; and

suitability and need for change in land ownership or use for purposes including but not limited to: community expansion or economic development, such as industrial, residential, or agricultural (other than grazing) development.

The land ownership adjustment criteria identified above will be considered in land reports and environmental analyses prepared for specific adjustment proposals.

Public land within retention areas (see the Management Units map and Appendix A) generally will remain in public ownership and be managed by the BLM. Transfers to other public agencies will be considered where improved management efficiency would result. Minor adjustments involving sales or exchanges or both may be permitted based on site-specific application of the land ownership adjustment criteria.

Public land within disposal areas generally will be made available for disposal through sales or exchanges or both. **Exchange will be the preferred method of disposal.** Some land may be retained in public ownership based on site-specific application of the land ownership adjustment criteria.

Public land within further study areas has not been prioritized for retention or disposal. Site-specific adjustment decisions will be based on application of the land ownership adjustment criteria.

Land to be acquired by the BLM through exchanges generally must be located in retention areas. In addition, acquisition of such land should:

facilitate access to public land and resources,

maintain or enhance important public values and uses,

maintain or enhance local social and economic values, or

facilitate implementation of other aspects of the Headwaters RMP.

Public land to be sold must meet the disposal criteria identified in State Director Guidance and the following criteria derived from the Federal Land Policy and Management Act:

such land must be difficult and uneconomic to manage as part of the public lands, and must not be suitable for management by another federal department or agency;

such land must have been acquired for a specific purpose and must no longer be required for that or any other federal purpose; or

disposal of such land will serve important public objectives that can only be achieved prudently or feasibly if the land is removed from public ownership, and if these objectives outweigh other public objectives and values that would be served by maintaining such land in federal ownership.

Sale will be used as a method of disposal only when:

it is required to achieve disposal objectives on a timely basis, and where disposal through exchange would cause unacceptable delays;

the level of interest in a specific tract indicates that competitive bidding is desirable for reasons of fairness; or

disposal through exchange is not feasible.

The method of sale will be determined on a case-by-case basis with the goal of avoiding unnecessary hardships on current public land users and surrounding or adjacent landowners. BLM policy for determining sale methods is further explained in Instruction Memorandum WO-83-524 (see Appendix T).

Trespass Abatement

Existing unauthorized uses of public land will be resolved either through termination, authorization by lease or permit, or disposal. Decisions will be based on consideration of the following criteria:

- the type and significance of improvements involved;
- conflicts with other resource values and uses, including potential values and uses; and
- whether the unauthorized use is intentional or unintentional.

New cases of unauthorized use generally will be terminated immediately. Temporary permits may be issued to provide short-term authorization, unless the situation warrants immediate cessation of the use and restoration of the land. Highest priority will be given to abatement of the following unauthorized uses:

- new unauthorized activities or uses where prompt action can minimize damage to public resources and associated costs;
- cases where delay may be detrimental to authorized users;
- cases involving special areas, sensitive ecosystems, and resources of national significance; and
- cases involving malicious or criminal activities.

Withdrawal Review

Review of other agency withdrawals will be completed by 1991. These withdrawals will be continued, modified, or revoked. Upon revocation or modification, part or all of the withdrawn land will revert to BLM management. Current BLM policy is to minimize the acreage of public land withdrawn from mining and mineral leasing, and, where applicable, to replace existing withdrawals with rights-of-way, leases, permits, or cooperative agreements.

Utility and Transportation Corridors

Public land within identified exclusion areas will not be available for utility and transportation corridor development.

Public land along the Rocky Mountain Front will continue to be managed as an avoidance area. Public land within avoidance areas generally will not be available for utility and transportation corridor development. Exceptions may be permitted based on consideration of the following criteria:

- type of and need for facility proposed;
- conflicts with other resource values and uses, including potential values and uses; and
- availability of alternatives and/or mitigation measures.

Public land within identified windows is available for utility and transportation corridor development. All other public land generally is available for utility and transportation corridor development. Exceptions will be based on consideration of the criteria identified above. Applicants will be encouraged to locate new facilities within existing corridors.

Recreation Program

General

A broad range of outdoor recreation opportunities will continue to be provided for all segments of the public, commensurate with demand. Trails and other means of public access will continue to be maintained and developed where necessary to enhance recreation opportunities and allow public use. Developed recreation facilities receiving the heaviest use will receive first priority for operation and maintenance funds. Sites that cannot be maintained to acceptable health and safety standards will be closed until deficiencies are corrected. Investment of public funds for new recreation developments will be permitted only on land identified for retention in public ownership.

Recreation resources will continue to be evaluated on a case-by-case basis as a part of project level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of recreation resources in the affected area. Stipulations will be attached as appropriate to assure compatibility of projects with recreation management objectives.

Travel Planning and Motorized Vehicle Use

Travel planning, including the designation of areas open, restricted, and closed to motorized vehicle access, will remain a high priority for public land in the following areas: the Rocky Mountain Front; the Jefferson, Missouri, and Smith river corridors; the Holter Lake area; Sleeping Giant; Marysville; the Spokane Hills; the Elkhorns; Black Sage; the Toston/Lombard area; and other seasonally important wildlife use areas. Public land within areas identified as open to motorized vehicle use generally will remain available for such use without restrictions. Exceptions to this general rule may be authorized after consideration of the following criteria:

the need to promote user enjoyment and minimize use conflicts;

the need to minimize damage to soil, watershed, vegetation, or other resource values;

the need to minimize harrassment of wildlife or significant degradation of wildlife habitats; and

the need to promote user safety.

Public land within areas identified as restricted to motorized vehicle use generally will receive priority attention during travel planning. Specific roads, trails, or portions of such areas may be closed seasonally or yearlong to all or specified types of motorized vehicle use.

Public land within areas identified as closed to motorized vehicle use will be closed yearlong to all forms of motorized vehicle use. Exceptions may be allowed in Wilderness Study Areas based on application of the Interim Management Policy.

Restrictions and closures will be established for specific roads, trails, or areas only where problems have been identified. Areas not designated as restricted or closed will remain open for motorized vehicle use.

Organized Motorcycle Events

The Montana City use area will remain available for organized motorcycle events. Public land along the RMF and the Jefferson, Missouri, and Smith rivers, and within the Beartooth Game Range, the Holter Lake/Sleeping Giant area, the Elkhorns, and the Toston/Lombard area will not be available for organized events. Applications for events on public land within areas identified as available for further consideration will be evaluated on a case-by-case basis. The criteria for travel planning and motorized vehicle use (listed above) will be used in this evaluation.

Visual Resources

Visual resources will continue to be evaluated as a part of activity and project planning. Such evaluation will consider the significance of the proposed project and the visual sensitivity of the affected area. Stipulations will be attached as appropriate to assure compatibility of projects with management objectives for visual resources.

Areas recommended for or designated as wilderness will be subject to Class 1 Visual Resource Management (VRM) guidelines. Natural ecological changes and limited management activity will be allowed in these areas; however, any man-made contrast created within the characteristic landscape must not attract attention.

Areas recommended for or designated as recreation lands or areas of critical environmental concern will be subject to Class 2 VRM guidelines until completion of area-specific management plans. At this time, VRM classes will be delineated in more detail based on the standard criteria of scenic quality, visual sensitivity, and distance zones. Class 2 guidelines require that changes in any of the basic visual elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape. Contrasts may be seen, but must not attract attention.

The following areas also will be subject to Class 2 VRM guidelines, unless a higher management class is required because of wilderness designation:

Rocky Mountain Front, Management Units 03, 04;

Yellowstone River Corridor, Management Units 08, 30;

Devils Kitchen, Management Unit 09;

Canyon Ferry Lake, Missouri River Corridor, Management Unit 17; and

Holter Lake, Management Unit 19.

Management classes for all other public lands would be determined during activity and project planning, in accordance with BLM visual resource management policy. Guidelines for Class 3 areas permit contrasts to the basic visual elements caused by a management activity to be evident, but generally subordinate to the existing landscape. In Class 4 areas, contrasting activities may attract attention and be a dominant feature of the landscape in terms of scale, but should be consistent with the basic visual elements of the characteristic landscape.

Cultural Resources

Cultural resources will continue to be inventoried and evaluated as part of project level planning **in compliance with EO11593 and Section 106 of the National Historic Preservation Act of 1966, as amended**. Such evaluation will consider the significance of the proposed project and the sensitivity of cultural resources in the affected area. Stipulations will be attached as appropriate to assure compatibility of projects with management objectives for cultural resources.

The objective of the BLM Cultural Resource program is to manage cultural resources in a stewardship role for public benefit. The Department of the Interior has issued instructions setting forth

this management structure through a use evaluation system. The purposes of the system are to anlayze the scientific and sociocultural values of cultural resources, to provide a basis for allocation of cultural resources, to make cultural resources an important part of the planning system, and to identify information needed when existing documentation is inadequate to support a reasonable cultural resource-based land use allocation.

The evaluation of cultural resources requires the consideration of actual or potential use of individual sites or properties within the following categories:

1. Sociocultural Use. This category refers to the use of an object (including flora and fauna), structure, or place based on a social or cultural group's perception that the item has utility in maintaining the group's heritage or existence.

2. Current Scientific Use. This category refers to a study or project in progress at the time of evaluation for which scientists or historians are using a cultural resource as a source of information that will contribute to the understanding of human behavior.

3. Management Use. This category refers to the use of a cultural resource by the BLM, or other entities interested in the management of cultural resources, to obtain specific information that is needed for the reasonable allocation of cultural resources or for the development of effective preservation measures.

4. Conservation for Future Use. This category refers to the management of cultural resources by segregating them from other forms of appropriation until specific conditions are met in the future. Such conditions may include the development of research techniques that are presently not available or the exhaustion of all other resources similar to those represented in the protected sample. The category is intended to provide long-term, onsite preservation and protection of select cultural resources.

5. Potential Scientific Use. This category refers to the potential use (utilizing research techniques currently available) of a cultural resource as a source of information that will contribute to the understanding of human behavior.

Wilderness Resources

Wilderness Study Areas will continue to be managed in compliance with the Interim Management Policy until they are reviewed and acted upon by Congress. Other areas being studied for wilderness will be managed to prevent unnecessary and undue degradation of the land, and, when it does not conflict with valid existing rights, they will be managed to meet the nonimpairment standard as well.

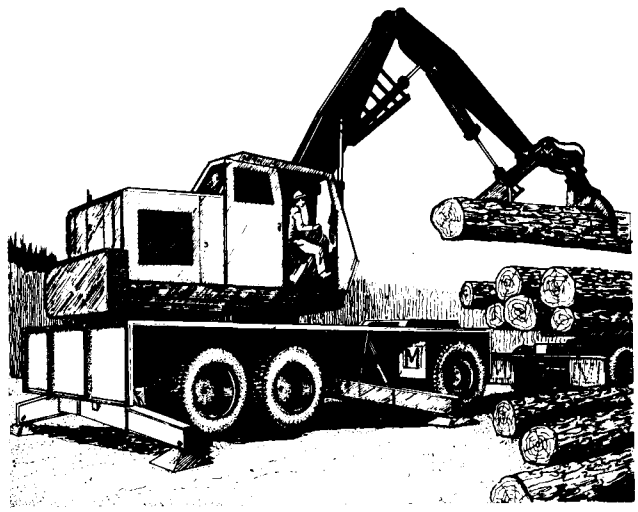
Public land within areas added by Congress to the National Wilderness Preservation System will be managed in compliance with the Wilderness Management Policy. Site-specific wilderness management plans will be developed for such areas.

Areas reviewed by Congress but not added to the National Wilderness Preservation System will be managed in accordance with other applicable guidance provided by this Resource Management Plan.

Forestry Program

General

Public land within high priority forest management areas will be available for a full range of forest management activities. Major forest activity plans (also known as compartment management plans, or CMPs) generally will be required prior to initiating forest management activities in such areas. Exceptions will be allowed for small sawlog, or commercial thinning sales. Exceptions will also be allowed for post and pole sales sold on a public demand basis, and for emergency salvage sales of insect, weather, or fire killed timber of less than 250,000 board feet. These sales will be covered by an environmental assessment and a checklist of contract stipulations that conform with the guidelines developed in the Dillon Sustained Yield Unit EA.



Public land within low priority forest management areas will also be available for a full range of forest management activities. However, forest activity plans will be abbreviated to fit the intensity of management.

Public land within set aside areas will not be available for the harvest of forest products.

Firewood gathering by individuals for home use will be permitted on most accessible forestland that is available for the harvest of forest products. Permits will cost $10 each and are good for a maximum of ten cords. Occasional free use may be authorized to clean up specific concentrations of debris.

Silvicultural Guidelines and Harvesting Techniques

Roads will be constructed to the minimum standards necessary to remove the timber, unless the roads will be needed for other public purposes requiring a higher standard.

Silvicultural prescriptions will be consistent with accepted methods related to site, species, habitat types, and the individual requirements of the forest stand. Tractor logging generally will be limited to slopes with average gradients of less than 50%, and the season of logging will be limited to avoid soil compaction and rutting.

Road locations will be determined on the basis of topography, drainage, soils, and other natural features to minimize erosion. Skid roads will be rehabilitated by seeding and/or scarification. Spur-roads will be left in a condition that will minimize erosion and encourage stabilization.

Slash disposal will be done in a manner conducive to revegetation and advantageous to the passage of big game. Slash will be burned when necessary and such burning will be in conformance with state air pollution regulations. Logging methods in riparian areas will be designed to minimize the amount of sediment-laden overland flow that reaches stream channels.

Logging units will be laid out in a manner that will mitigate the risk of windthrow, and the selection of trees in shelterwoods will be made in a manner that will improve the genetic composition of the regenerated stand. Disturbed areas will be artificially revegetated when natural forest regeneration cannot be reasonally expected in five to fifteen years.

Guidelines from the *Montana Cooperative Elk Logging Study* (USDA, FS 1982) will be utilized where applicable in the formulation of forest activity plans. In concert with the timber management program, a snag management program will be implemented to enhance habitat for cavity-nesting birds.

These are all general guidelines. More detailed discussions of measures that can be applied are found in the environmental assessments for the Dillon and Missoula Sustained Yield Units.

Range Program

Allotment Categorization

All grazing allotments in the resource area have been assigned to one of three management categories based on present resource conditions and the potential for improvement (see **Appendixes D and M).** The M allotments generally will be managed to maintain current satisfactory resource conditions; I allotments generally will be managed to improve resource conditions; and C allotments will receive custodial management to prevent resource deterioration.

Allotment-Specific Objectives for the Improvement Category

Multiple-use management objectives have been developed for each allotment in the I category (see Appendix E). Future management actions, including approval of allotment management plans, will be tailored to meet these objectives. However, the priorities assigned to achieving objectives for wildlife habitat, watershed, vegetation condition, and livestock forage production differ between alternatives.

Implementing Changes in Allotment Management

Activity plans are commonly used to present, in detail, the types of changes required in an allotment, and to establish a schedule for implementation **(see Appendix E).** Actions set forth under the plan that affect the environment will be analyzed and compared to alternative actions. During the analysis, the proposal may be altered or completely revamped to mitigate adverse impacts. The following sections contain discussions of the types of changes likely to be recommended in an activity plan and the guidance that applies to these administrative actions.

Livestock Use Adjustments. Livestock use adjustments are most often made by changing one or more of the following: the kind or class of livestock grazing an allotment, the season of use, the stocking rate, or the pattern of grazing. For each of the four alternatives presented in this RMP, target stocking rates have been set for each allotment in the Improve category (refer to Appendix N). Appendix N also notes where adjustments in the season of use and the class or kind of livestock may be needed. While most livestock use adjustments will occur in the I allotments, use adjustments are permitted for allotments in categories C and M.

In reviewing the target stocking rate figures and other recommended changes, it is emphasized that the target AUM figures are not final stocking rates. Rather, all livestock use adjustments will be implemented through documented mutual agreement or by decision. When adjustments are made through mutual agreement, they may be implemented once the Rangeland Program Summary has been through a public review period. When livestock use adjustments are implemented by decision, the decision will be based on operator consultation, range survey data, and monitoring of resource conditions. Current BLM policy emphasizes the use of a systematic monitoring program to verify the need for livestock adjustments proposed on the basis of one-time inventory data.

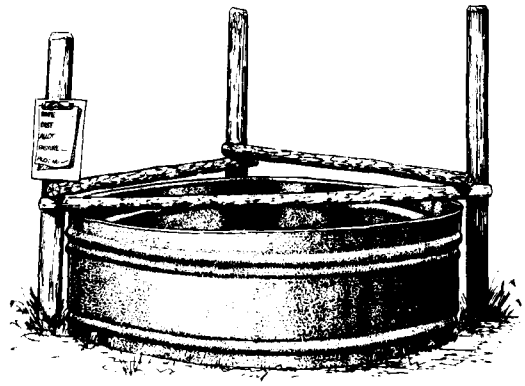
Monitoring will also be used to measure the changes brought about by new livestock management practices and to evaluate the effectiveness of management changes in meeting stated objectives.

Instruction Memorandums WO-82-292, WO-82-650, and MT-82-89 discuss the applications of rangeland monitoring in more detail.

The federal regulations that govern changes in allocation of livestock forage provide specific direction for livestock use adjustments implemented by decision (43 CFR 4110.3-1 and 43 CFR 4110.3-2). The regulations specify that permanent increases in livestock forage "shall be implemented over a period not to exceed five years. . . ," and that decreases in livestock forage "shall be implemented over a five year period. . . ." The regulations do provide for decreases to be implemented in less than five years when: (1) the downward adjustment is 15% or less of the "authorized active grazing use for the previous year;" (2) an agreement is reached to implement the adjustment in less than five years; or (3) a shorter implementation period is needed to sustain resource productivity.

Range Improvements and Treatments.- Range improvements and treatments will be implemented under all alternatives. Typical range improvements and treatments and the general procedures to be followed in implementing them are described in Appendix F. The extent, location, and timing of such actions will be based on the allotment-specific management objectives adopted through the resource management planning process; interdisciplinary development and review of proposed actions; operator contributions; and BLM funding capability.

All allotments in which range improvement funds are to be spent will be subjected to an economic analysis. The analysis will be used to develop a final priority ranking of allotments for the commitment



of the range improvement funds that are needed to implement activity plans. The highest priority for implementation generally will be assigned to those improvements for which the total anticipated benefits exceed costs.

Grazing Systems. Grazing systems will be implemented under all alternatives. The type of system to be implemented will be based on consideration of the following factors:

- allotment-specific management objectives (see Appendix E);
- resource characteristics, including vegetation potential and water availability;
- operator needs; and
- implementation costs.

Typical grazing systems available for consideration are described in Appendix G.

Unleased Tracts. Unleased tracts generally will remain available for further consideration for authorized grazing, as provided for in the BLM grazing regulations (43 CFR 4110 and 4130). **However, all islands not currently authorized for grazing use and certain other tracts similarly unauthorized for grazing use will remain unleased. These tracts, exclusive of the islands, total approximately 13,882 acres and are identified in Table 2-1. Eight islands totaling 172 acres are known to be affected. Other presently unsurveyed islands may also be affected but would not add appreciably to the acreage estimate.**

The Dog Hair tract (1032) has been dropped from the list of tracts to remain unleased as a result of BLM review of the Draft RMP/EIS. Wildlife use levels on this tract are no longer considered significant enough to warrant a total forage reservation for elk and mule deer. The Marysville Townsite tract (1195) has been added to the list because it is no longer leased for grazing and because of the reasons stated in Table 2-1. Islands were inadvertently omitted from the list. Unleased islands will remain unleased in order to avoid conflicts with recreation and wildlife uses.

TABLE 2-1
UNLEASED TRACTS TO REMAIN UNLEASED

Name and Number	Legal Description	Acres	Rationale
Scratchgravel (1007)	T10N, R4W Sec. 5 Lot 1 NE of Road Sec. 4, Lot 4, 1, 2 S½NE¼ NW¼SE¼ Sec. 3, Lots 3, 4 S½NW¼ N½SW¼ T11N, R4W Sec. 27, N½SE¼ S and W of Fence S½S½ NE¼SW¼ S of Fence Sec. 28, SW¼ Unlotted PD in SE¼ S and W of Fence Sec. 29, SE¼; N½ Sec. 33, E½; NW¼; W½SW¼ Sec. 34, NW¼; W½SW¼ W½E½SW¼ W½NE¼ NE¼NE¼ E½SW¼NE¼ Sec. 20, SW¼ Sec. 19, SE¼NE¼	2,469	Conflicts with recreational use and expanding suburban development
South Knob (1008)	T10N, R4W Sec. 1, Lots 11, 14, 15, 18, 13, 12	110	Conflicts with recreational use and expanding suburban development
Green Meadow (1009)	T10N, R4W Sec. 2, Lots 7, 8, 9 Unlotted PD in NW¼	124.2	Conflicts with recreational use and expanding suburban development
Orchard (1015)	T10N, R1W Sec. 27, N½NE¼	80	Recreational conflicts
Silver Creek (1023)	T11N, R4W Sec. 23, Lying N and E of BN tracks	20	Riparian habitat protection
Silver Creek (1033)	T12N, R5W Sec. 31, Lots 9, 10, 11 Sec. 32, Lot 8 Unlotted PD Lot 12 Sec. 33, Lot 4	141	Reservation needed for riparian habitat protection
Beartooth Ranch (1037)	T13N, R3W Sec. 2, Lots 6 and 7 Sec. 12, Lots 3, 4, 5 Sec. 14, Lots 1, 2, 3	200	Forage reservation needed for bighorn sheep habitat protection

Cottonwood (1041)	T14N, R2W Sec. 12, S½	320	Forage reservation needed for elk winter habitat
South Fork (1044)	T15N, R2W Sec. 2, NE¼, NE¼NW¼ Sec. 12, E½, E½W½ Sec. 13, All	1,320	Forage reservation needed for riparian habitat and big game habitat protection
Smith Creek (1051)	T19N, R8W Sec. 30, S½SW¼ Sec. 32, W½W½	240	Land and forage reservation needed for grizzly bear habitat protection
Roost Hill (1052)	T20N, R8W Sec. 6, NE¼, NE¼NW¼ N½SE¼ Sec. 5, NW¼, N½SW¼	520	Land and forage reservation needed for grizzly bear, bighorn sheep, and elk habitat protection
Shed Creek (1054)	T21N, R8W Sec. 34, SW¼SW¼	40	Forage reservation needed for elk winter habitat
Dutchman Creek (1058)	T8N, R3W Sec. 34, SE¼SE¼	40	Forage reservation needed for riparian, deer, and elk habitat protection
Antelope Butte (1093)	T4S, R8E Sec. 14, E½NE¼ SW¼, SW¼NE¼	280	Reservation of forage required for mule deer and elk winter/spring habitat
Dailey Lake (1100)	T7S, R7E Sec. 2, NW¼NW¼	40	Reservation needed for wetland habitat protection at Dailey Lake
Pamburn (1127)	T25N, R8W Sec. 19, Lot 4 Sec. 30, Lots 1, 2, 3	192.25	Land and forage reserved for bighorn sheep habitat (previously set aside by District Manager's decision dated May 22, 1975).
Ear Mountain (1134)	T24N, R8W Sec. 18, Lots 1, 2, 3, 4 E½SW¼ Sec. 19, Lots 1, 2, 3 E½NW¼, W½NE¼ NE¼SW¼, NE¼SE¼	550.2	Land and forage needed for threatened and endangered species protection and bighorn sheep, mountain goat, and mule deer winter/spring forage (reserved previously by District Manager's decision dated November 4, 1977).
Devils Kitchen (1137)	T16N, R2W Sec. 24, S½	320	Reservation needed for the protection of fragile and unstable watershed conditions and wildlife habitat
Chisolm Mountain (1138)	T16N, R2W Sec. 10, N½NW¼, SW¼NW¼	120	Reservation required for mule deer and riparian habitat protection
Harris Mountain (1139)	T16N, R1W Sec. 2, N½	327	Forage reservation required for the protection of fragile and unstable watershed conditions and wildlife habitat
Sawtooth (1140)	T16N, R1W Sec. 28, All Sec. 30, All Sec. 32, All Sec. 34, Lots 1, 2, 3 NW¼, W½NE¼, NW¼SE¼, N½SW¼	2,286	Forage reservation required for the protection of fragile and unstable watershed conditions and wildlife habitat
Black Butte (1142)	T16N, R4E Sec. 28, S½	320	Reservation required for elk and mule deer habitat

Finnegan Mountain (1145)	T17N, R2W Sec. 12, W½W½ SE¼NW¼, SE¼SW¼ S½SE¼	318	Reservation of forage required for deer and elk winter habitat
Sawmill Peak (1146)	T17N, R2W Sec. 18, E½E½, SW¼NE¼	200	Reservation of forage required for deer and elk winter habitat
Hardy Creek (1147)	T17N, R2W Sec. 24, SW¼, S½NW¼	240	Reservation of forage required for deer and elk winter habitat
Bull Mountain Game Range (1168)	T3N, R4W Sec. 18, All Sec. 20, W½ Sec. 30, All	1,599	To provide winter forage for elk and mule deer (previously reserved by the Dept. of the Interior for use by the Montana Dept. of Fish, Wildlife, & Parks as part of the Bull Mountain Game Range, dated July 26, 1955).
Jefferson Hot Springs (1172)	T1N, R4W Sec. 32, that portion of the SE¼ west of the river	15	Reservation needed for riparian and wetland habitat protection
Kilborn Gulch (1177)	T6N, R5W Sec. 25, All land in Sec. 25 lying south of the Boulder River	372	To provide winter forage for elk, moose, and mule deer (previously set aside for wildlife habitat by District Manager's decision on August 7, 1969).
Chicken (1187)	T16N, R4E Sec. 8, S½NE¼	80	Reservation required for elk and mule deer habitat
Marysville Townsite (1195)	**T12N,R6W** **Sec. 36, Lots 29, 30, 33, 34, 35** **Sec. 35, Lots 24, 25, 33, Lying S and E of the Marysville boundary fence**	**135.08**	**Conflicts with residential development in and adjacent to the town of Marysville**
Rinker Creek (6301)	T26N, R8W Sec. 29, NW¼SW¼, Sec. 30, S½NW¼, SW¼, W½SE¼ NE¼SE¼, SW¼NE¼ Sec. 31, NW¼NE¼, SE¼ Sec. 32, NW¼SW¼	680	Reservation required for grizzly bear habitat protection
Blackleaf (6302)	T26N, R8W Sec. 18, Lot 3	37	Reservation required for grizzly bear habitat protection
Unnamed	T1N, R1W Sec. 24, SW¼NE¼	40	Reservation needed for riparian and wetland habitat protection

Wildlife and Fisheries Program

General

Fish and wildlife habitat will continue to be evaluated on a case-by-case basis as a part of project level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of fish and wildlife habitat in the affected area. **Concepts of critical, crucial, and essential habitats (see Glossary) will be used as part of the sensitivity evaluation.** Stipulations will be attached as appropriate to assure compatibility of projects with management objectives for fish and wildlife habitat. Habitat improvement projects will be implemented where necessary to stabilize and/or improve unsatisfactory or declining wildlife habitat condition. Such projects will be identified through habitat management plans or coordinated resource management activity plans.

Seasonal Restrictions

Seasonal restrictions will continue to be applied where they are needed to mitigate the impacts of human activities on important seasonal wildlife habitat. The major types of seasonal wildlife habitat and the time periods which restrictions may be needed are shown in Table 2-2.

TABLE 2-2
SEASONAL WILDLIFE RESTRICTIONS

Habitat	Restricted Period
Elk and mule deer winter range	12/1-4/30
Elk and mule deer spring range (including calving and fawning)	4/15-6/30
Bighorn sheep winter range	12/1-4/30
Bighorn sheep spring range (including lambing)	4/15-6/30
Mountain goat winter range	12/1-4/30
Mountain goat spring range (including kidding)	5/1-6/30
Moose winter range	12/1-4/30
Raptor nest sites	dates vary by species
Grizzly bear spring and summer range	4/1-9/1
Grizzly bear denning habitat	10/1-4/30

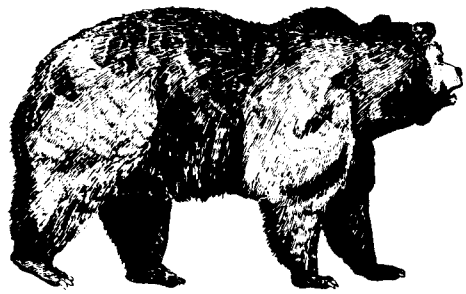
Threatened, Endangered, and Sensitive Species Habitat

No activities will be permitted in habitat for threatened and endangered species that would jeopardize the continued existence of such species.

Whenever possible, management activities in habitat for threatened, endangered, or sensitive species will be designed to benefit those species through habitat improvement.

The Montana Department of Fish, Wildlife, and Parks and the U.S. Fish and Wildlife Service will be consulted prior to implementing projects that may affect habitat for threatened and endangered species. If a may affect situation is determined through the BLM biological assessment process then consultation with the USFWS will be initiated as per section 7 of the Endangered Species Act of 1973, as amended.

To the extent practicable, management actions within occupied grizzly bear habitat will be consistent with the goals and objectives contained in the Grizzly Bear Recovery Plan (USDI, FWS 1982), and the guidelines developed through the Interagency Wildlife Monitoring Program for mineral exploration and development.



Terrestrial Wildlife Habitat

Sufficient forage and cover will be provided for wildlife on seasonal habitat. Forage and cover requirements will be incorporated into allotment management plans and will be specific to areas of primary wildlife use.

Range improvements generally will be designed to achieve both wildlife and range objectives. Existing fences may be modified and new fences will be built so as to allow wildlife passage. Water developments generally will not be established for livestock where significant conflicts over vegetation would result. Water will be provided in allotments (including rested pastures) during seasonal periods of need for wildlife.

Vegetative manipulation projects will be designed to minimize impact on wildlife habitat and to improve it whenever possible. **The MDFW&P will be consulted in advance on all vegetative manipulation projects, including timber harvest activities involving: the construction of new access into roadless elk summer/fall range; critical, crucial, or essential wildlife habitat; and sales of over 250,000 board feet.** Animal control programs will be coordinated with the U.S. Fish & Wildlife Service and, in the case of aerial gunning requests, with the Montana Department of Livestock.

Management actions within floodplains and wetlands will include measures to preserve, protect, and if necessary, restore their natural functions (as required by Executive Orders 11988 and 11990). Management techniques will be used to minimize the degradation of stream banks and the loss of riparian vegetation. Bridges and culverts will be designed and installed to maintain adequate fish passage.

Riparian habitat needs will be taken into consideration in developing livestock grazing systems and pasture designs. Some of the techniques that can be used to lessen impacts are:

- changing class of stock from cow/calf pairs to herded sheep or yearlings;
- either eliminating hot season grazing or scheduling hot season grazing for only one year out of every three;
- locating salt away from riparian zones;
- laying out pasture fences so that each pasture has as much riparian habitat as possible;
- locating fences so that they do not confine or concentrate livestock near the riparian zone;
- developing alternative sources of water to lessen the grazing pressure on the riparian habitat; and
- as a last resort, excluding livestock completely from riparian habitat by protective fencing.

Where applicable, the elk management guidelines contained in the Montana Cooperative Elk-Logging Study (USDA, FS 1982) will be followed. These include:

- managing public vehicle access to maintain the habitat effectiveness of security cover and key seasonal habitat (such as winter range and calving/nursery areas) for deer and elk;
- maintaining adequate untreated peripheral zones around important moist-sites (i.e. wet-sedge meadows, springs, riparian zones);
- maintaining adequate thermal and security cover on deer and elk habitat, particularly within timber stands adjacent to primary winter foraging areas;
- ensuring that slash depth inside clear cuts does not exceed one and one-half feet; and
- generally discouraging thinning immediately adjacent to clear cuts;

Wildlife reintroductions and fish stocking proposals will be evaluated and recommendations will be made to the Montana Department of Fish, Wildlife, & Parks. BLM policy requires that a Habitat Management Plan (HMP) be prepared prior to any wildlife reintroduction.

Cadastral Survey Program

Cadastral surveys will continue to be conducted in support of resource management programs. Survey requirements and priorities will be determined on a yearly basis as a part of the annual work planning process.

Fire Program

Until the 1978 Normal Year Fire Plan is updated, the primary fire protection objective will continue to be the control, during the first burning period, of all wildfires on or threatening public land.

Modified suppression areas may be established when the Normal Year Fire Plan is reviewed, based on the consideration of the following criteria:

- values at risk;
- fire behavior;
- fire occurrence;
- beneficial fire effects, including but not limited to a reduction in fuel loading;
- fire suppression costs; and
- consistency with other agency plans and policies.

Prescribed burning will continue to be used in support of resource management objectives.

Road and Trail Construction and Maintenance Program

Road and trail construction and maintenance will continue to be conducted in support of resource management objectives. Construction and maintenance requirements and priorities will be determined on a yearly basis as a part of the annual work planning process.

Investment of public funds for road and trail construction generally will be permitted only on land identified for retention in public ownership. Excep-

tions may be allowed where investment costs can be recovered as a part of land disposal actions.

Specific road and trail construction standards will be determined based on consideration of the following criteria:

- resource management needs;
- user safety;
- impacts to environmental values, including but not limited to wildlife and fisheries habitat, soil stability, recreation, and scenery; and
- construction and maintenance costs.

ALTERNATIVES CONSIDERED IN DETAIL

Introduction

Four alternatives are considered in detail in this chapter. Three of them—no action, environmental protection, and resource production—were developed to explore a reasonable range of issue resolution scenarios as required by CEQ and BLM planning regulations. The fourth alternative—the preferred alternative, or proposed RMP—incorporates portions of the no action, protection, and production alternatives, and generally represents a middle ground approach to issue resolution.

In order to highlight the BLM's preferred alternative for the Headwaters RMP, it is the first alternative discussed in this chapter and all subsequent chapters. It is followed by the no action, protection, and production alternatives in that order. No priority or preference is implied by the order of the latter three alternatives.

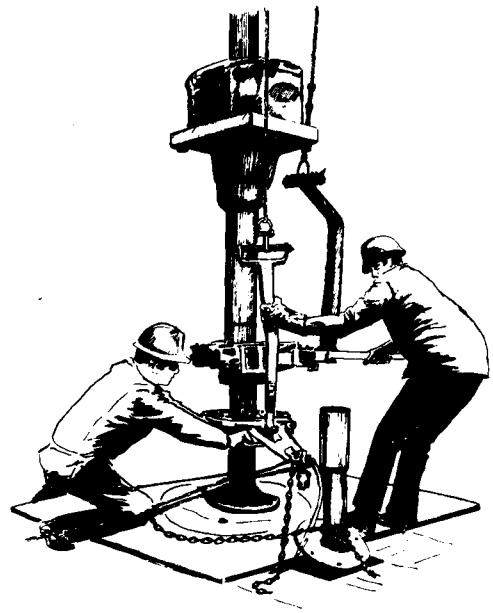
Alternative A: Preferred Alternative

Theme

The preferred alternative balances competing demands by providing for the production of needed goods and services, while protecting important and sensitive environmental values. The goal of this alternative is to change present management to the extent necessary to meet statutory requirements, policy commitments, and to resolve identified issues in a balanced, cost-effective manner.

Issue Resolution Guidelines

Issue 1: Oil and Gas Leasing and Development. Seasonal stipulations on oil and gas exploration and/or production will be required in bighorn sheep, elk, and mule deer winter/spring range and mountain goat kidding areas. No surface occupancy will be permitted in key grizzly bear spring/summer use areas and within proposed outstanding natural areas. No leasing will be permitted within the core of areas identified for no surface occupancy, if reservoir drainage would not be feasible. Guidelines are displayed on the Oil and Gas Leasing Stipulations: Alternative A map, and are summarized in Table 2-3.



Issue 2: Grazing Allotment and Riparian Habitat Management. Reductions in authorized livestock use will be proposed for nineteen allotments, while increases will be proposed for seven allotments. Target levels of adjusted livestock use have been developed (see Appendix N) based on range condition ratings and the Soil Conservation Service's *Montana Grazing Guides* (USDA, SCS n.d.). These target livestock use levels may be adjusted in the future to reflect new resource information gathered by monitoring or other studies. All allotments have been assigned a priority ranking so that future investments in range improvements, treatments, and monitoring will be directed to allotments with the greatest potential for improvement of wildlife, watershed, and vegetation conditions and livestock forage production (see Appendix E). Adjustments proposed under this alternative are summarized in Table 2-4. Estimated range improvement requirements are summarized in Table 2-5.

Issue 3: Wilderness Study Recommendations. All areas being studied for wilderness are being recommended as nonsuitable for wilderness management. Individual area boundaries are displayed on the alternative maps for Blind Horse Creek, Chute Mountain, Deep Creek/Battle Creek, Black Sage, and the Yellowstone River Island. Recommendations are summarized in Table 2-6.

TABLE 2-3
SUMMARY OF OIL AND GAS LEASING AND DEVELOPMENT GUIDELINES
(in acres)[1]

ROCKY MOUNTAIN FRONT ONLY

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Standard Stipulations	86,050	36,160	36,160	34,740	36,480
Special Stipulations	17,700	49,500	59,460	3,700	70,820
No Surface Occupancy	3,550	14,040	7,200	39,020	0
No Leasing	10,950	18,550	15,430	40,790	10,950

HEADWATERS RESOURCE AREA

Allocation	Current Status[2]	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Standard Stipulations	450,154	272,449	272,449	271,324	272,703
Special Stipulations	163,333	339,208	347,103	302,903	356,107
No Surface Occupancy	23,550	22,950	17,528	42,751	11,821
No Leasing	12,918	20,898	18,425	38,527	14,874

[1]Acreage estimates for the Rocky Mountain Front include all lands with oil and gas rights reserved to the United States. Acreage estimates for the Headwaters Resource Area include only those lands with all minerals reserved to the United States.

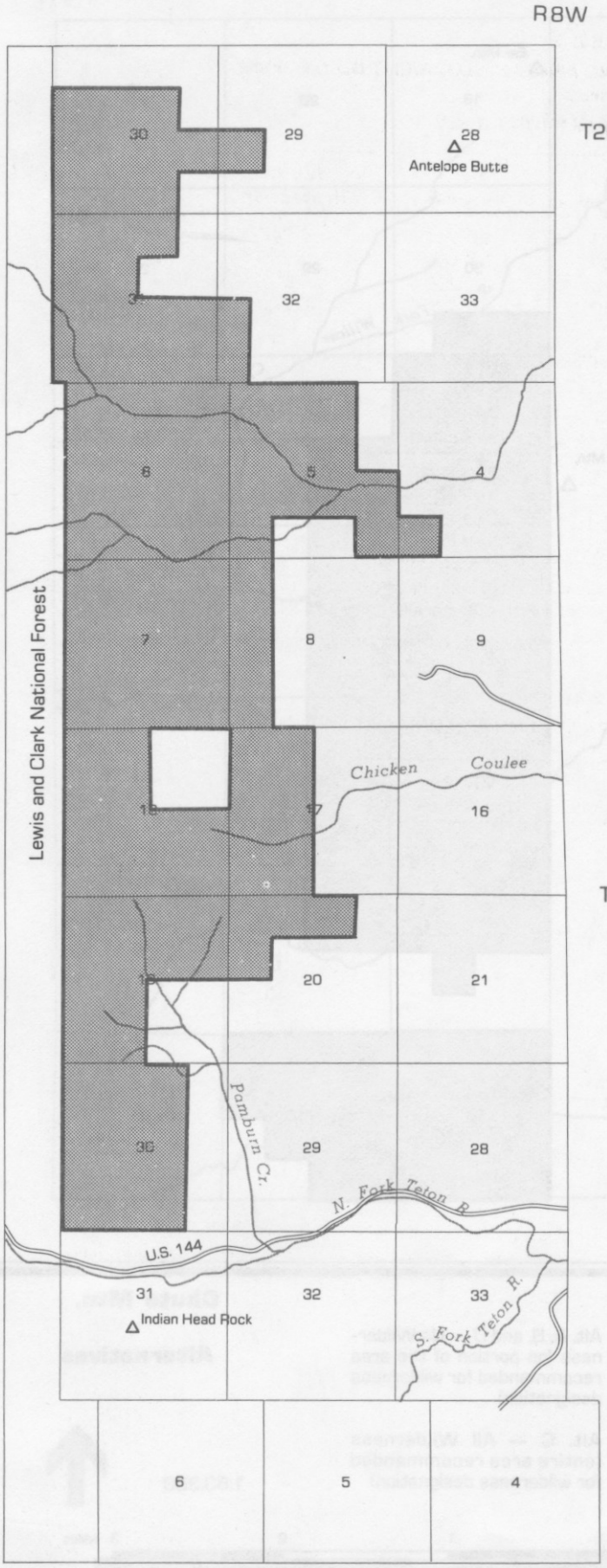
[2]Not shown are approximately 5,550 acres within the resource area which currently are unleased but available for lease.

TABLE 2-4
SUMMARY OF GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT GUIDELINES

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Initial Livestock Forage Target (AUMs)	31,501	29,297	31,501	27,036	33,954
Net Change From Current Use (AUMs)	0	-2,204	0	-4,465	+2,453
Downward Adjustments (allotments)	0	19	0	34	9
Upward Adjustments (allotments)	0	7	0	0	34
Satisfactory Riparian Habitat Condition (miles)	104	**130**	123	135.5	105

TABLE 2-5
SUMMARY OF ESTIMATED RANGE IMPROVEMENTS

Type of Treatment	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Acres to be Reseeded	2,560	2,560	440	3,140
Acres to be Burned	300	300	240	4,640
Miles of Fence to be Built (Removed or Altered)	62.2	62.2	75.9 (13)	45.3
Number of Springs to be Developed	21	21	0	26
Miles of Pipeline to be Built	23.5	23.5	0	23.5
Number of Stock Tanks to be Installed	20	20	0	20
Acres of Weeds to be Controlled	467.5	467.5	0	467.5
Number of Cattleguards to be Installed	11	11	10	8
Number of Other Water Developments to be Built	5	5	0	5
Total Initial Cost For All Improvements	$449,331	$449,331	$247,659	$442,020
25 Year Maintenance and Replacement Cost	$637,997	$637,997	$322,907	$746,913



Blind Horse Cr.

Alternatives

NORTH

WSA Boundary

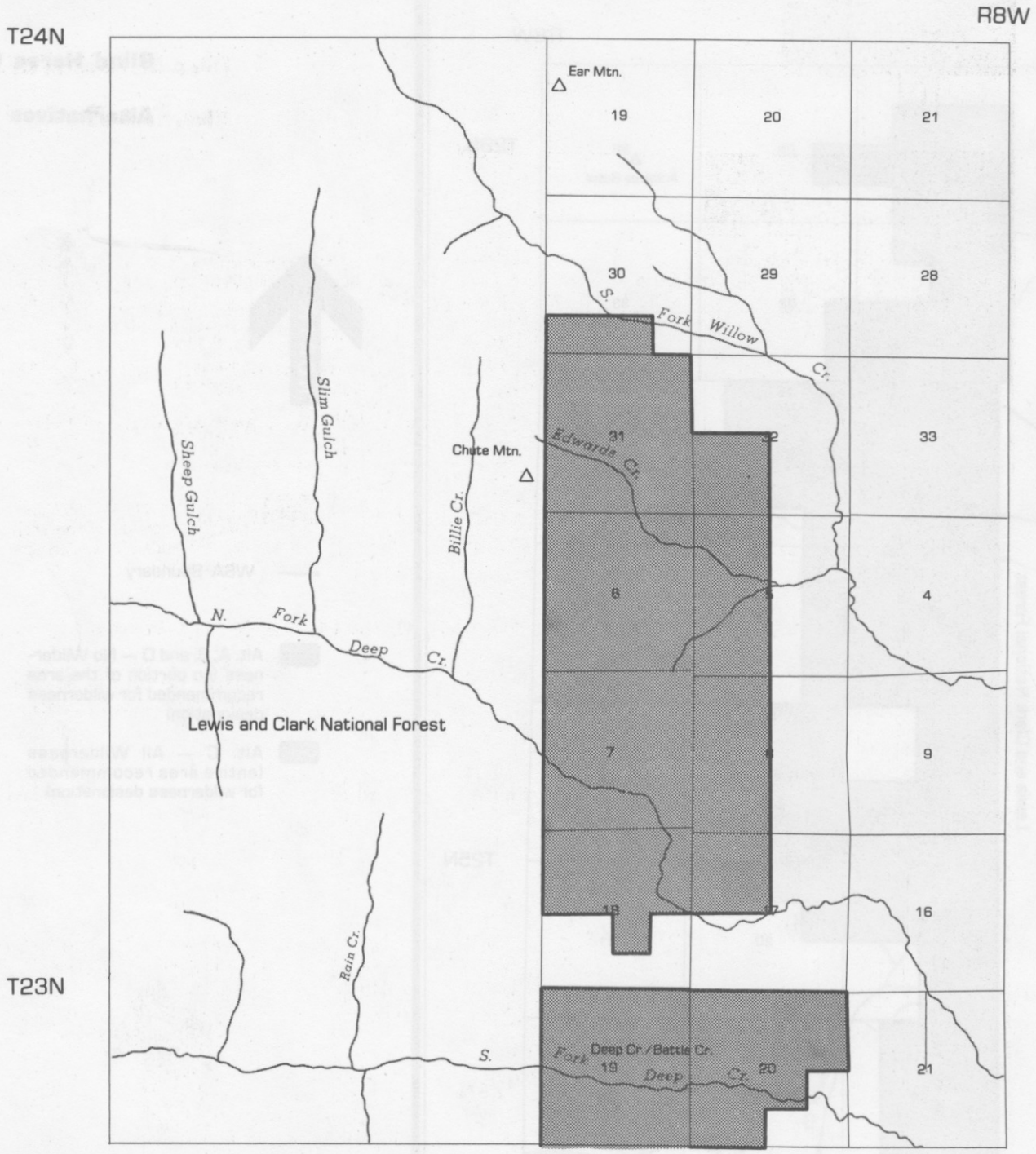
Alt. A, B, and D — No Wilderness (no portion of the area recommended for wilderness designation)

Alt. C — All Wilderness (entire area recommended for wilderness designation)

0 1 2 Miles

0 1 2 3 Kilometers

1:63,360



WSA Boundary

Alt. A, B, and D — No Wilderness (no portion of the area recommended for wilderness designation)

Alt. C — All Wilderness (entire area recommended for wilderness designation)

Chute Mtn.

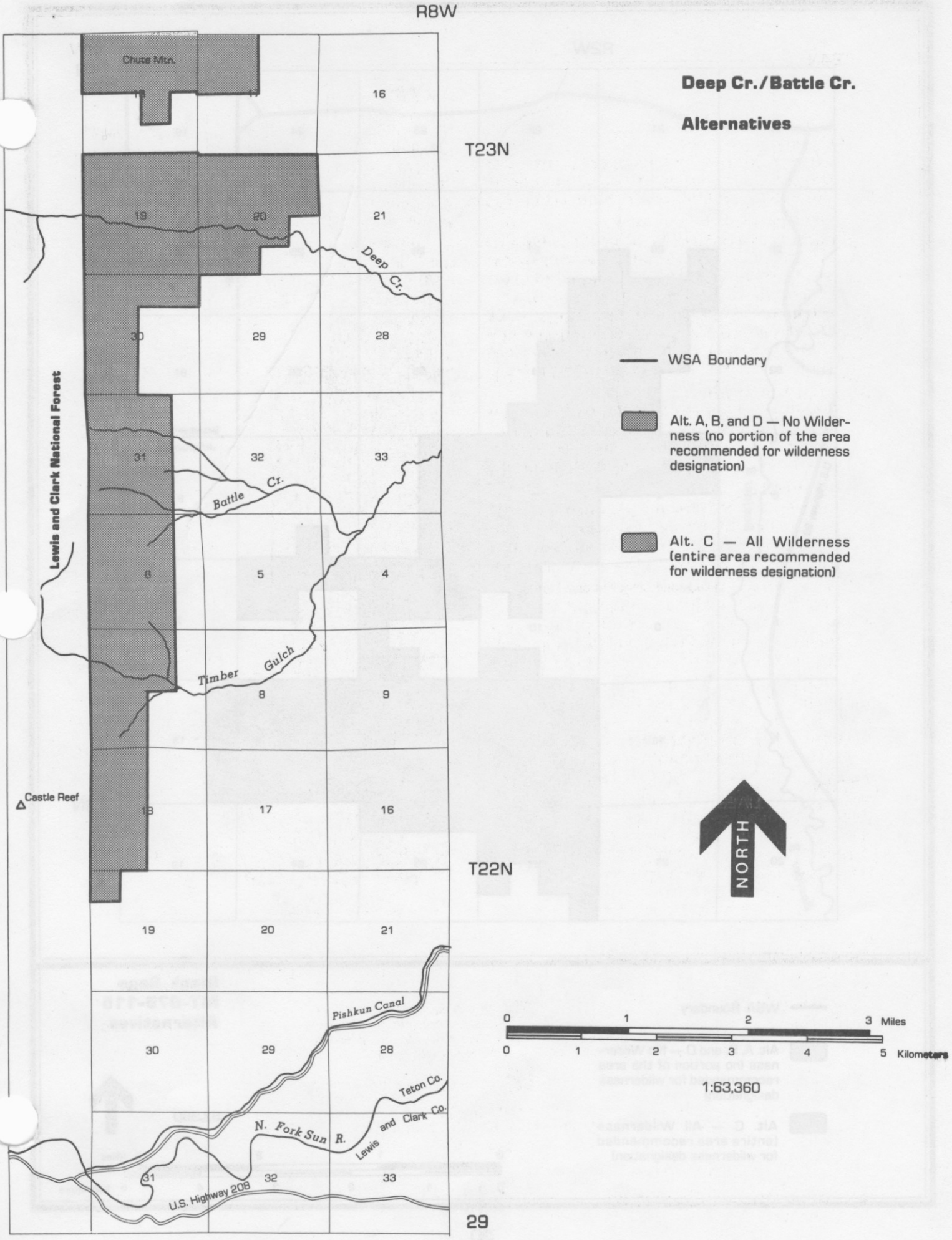
Alternatives

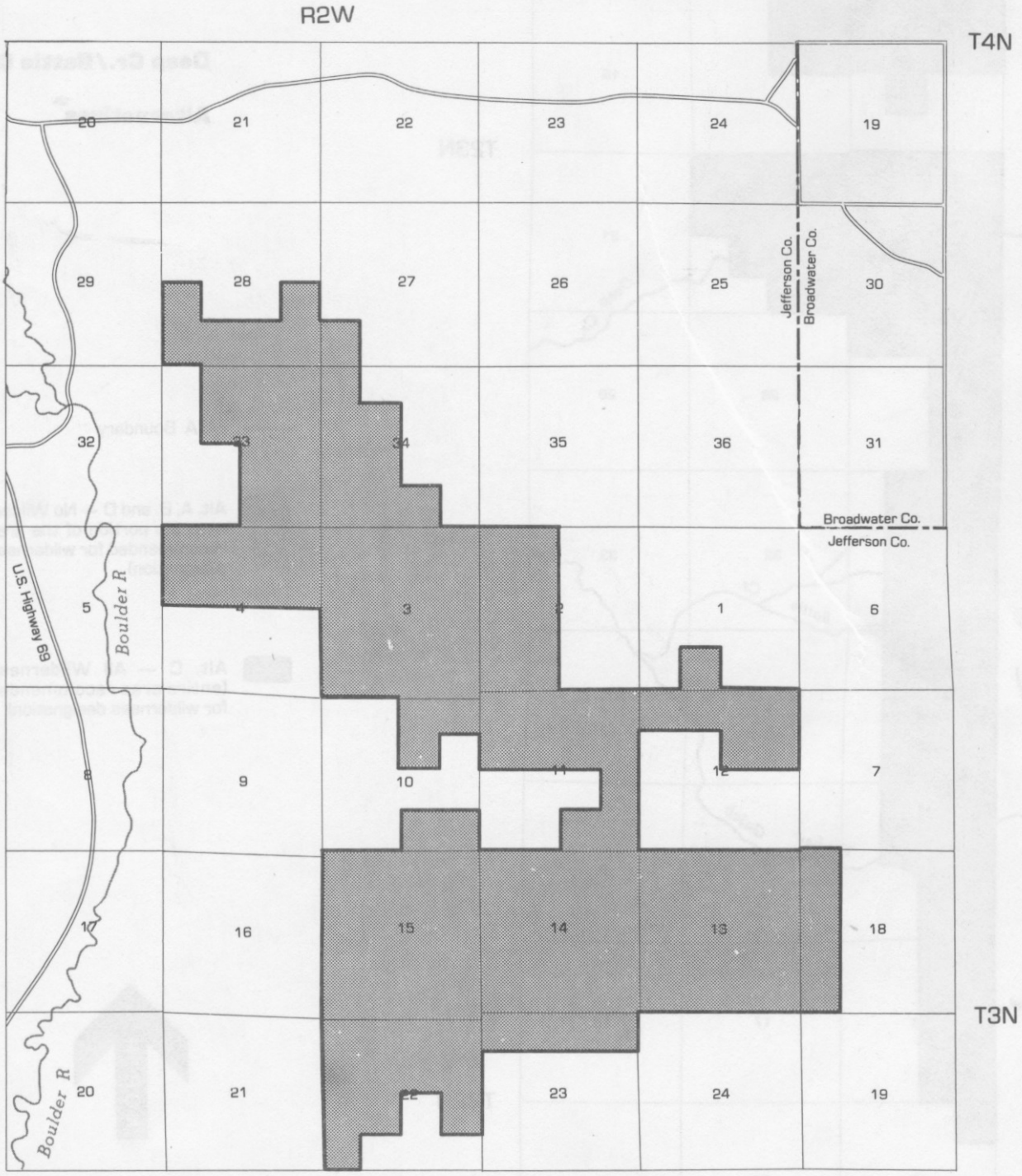
1:63,360

NORTH

0 1 2 3 Miles

0 1 2 3 4 5 Kilometers


R8W
Chute Mtn.
T23N
T22N
Deep Cr.
Battle Cr.
Timber Gulch
Lewis and Clark National Forest
Castle Reef
Pishkun Canal
N. Fork Sun R.
Teton Co.
Lewis and Clark Co.
U.S. Highway 208
Deep Cr./Battle Cr.
Alternatives
WSA Boundary
Alt. A, B, and D — No Wilderness (no portion of the area recommended for wilderness designation)
Alt. C — All Wilderness (entire area recommended for wilderness designation)
NORTH
0 1 2 3 Miles
0 1 2 3 4 5 Kilometers
1:63,360



Black Sage
MT-075-115
Alternatives

WSA Boundary

Alt. A, B, and D — No Wilderness (no portion of the area recommended for wilderness designation)

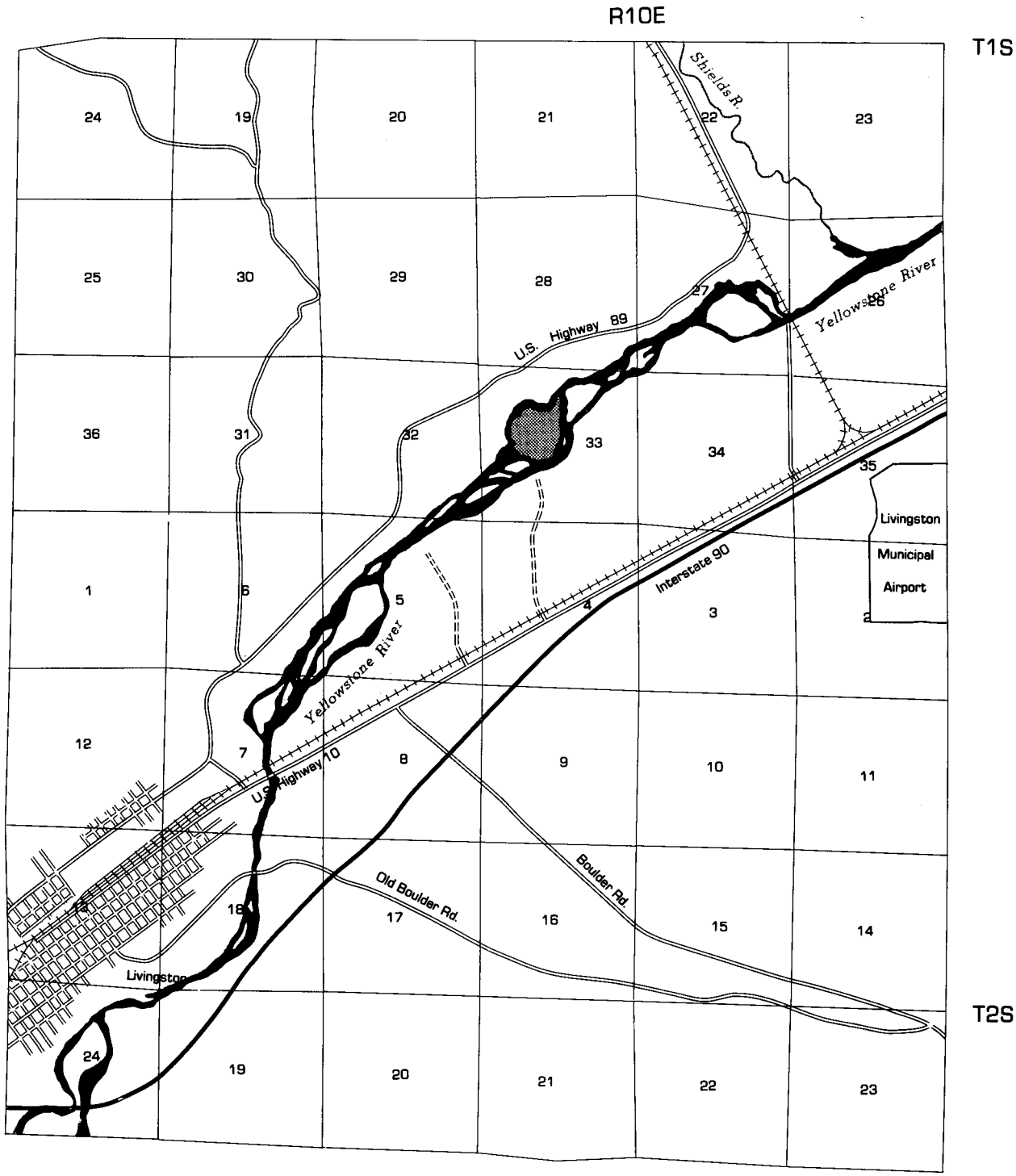
Alt. C — All Wilderness (entire area recommended for wilderness designation)

1:63,360

NORTH

0 1 2 3 Miles

0 1 2 3 4 5 Kilometers



Yellowstone R. Island
MT-075-133
Alternatives

WSA Boundary

Alt. A, B, and D — No Wilderness (no portion of the area recommended for wilderness designation)

Alt. C — All Wilderness (entire area recommended for wilderness designation)

1:63,360

NORTH

0 1 2 3 Miles

0 1 2 3 4 5 Kilometers

TABLE 2-6
SUMMARY OF WILDERNESS STUDY RECOMMENDATIONS
(in acres)

Recommendation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Suitable for Wilderness	0	0	0	17,197	0
Nonsuitable for Wilderness	17,197	17,197	17,197	0	17,197

Issue 4: Forest Management. All public land will be available for forest management except for the Blind Horse Creek, Ear Mountain, Chute Mountain, Deep Creek/Battle Creek, Sleeping Giant, Scratchgravel Hills, **and Elkhorn areas.**

The Elkhorn area (Management Area #36) would be set aside from forest management activities until completion of a Coordinated Resource Management Plan (CRMP). The Elkhorn CRMP will be based on the following management objectives and guidelines:

> **All management activities will be designed to maintain or improve elk, mule deer, and moose habitat, with primary emphasis on elk summer habitat and calving areas.**
>
> **Management activities also will be designed to maintain or enhance opportunities for dispersed recreation, to the extent permitted by wildlife habitat objectives.**
>
> **The existing road network generally will remain open for public use. Seasonal restrictions may be imposed to minimize impacts on elk during calving season (4/15 to 6/30).**
>
> **Timber harvest and prescribed burning may be used to improve wildlife habitat conditions. New roads needed for the removal of forest products will be kept to a minimum. New roads will be physically closed to public use following completion of forest management activities, unless needed to meet other management objectives for the area.**
>
> **Resource management objectives for the Muskrat Allotment (Appendix E, #0249) will be incorporated into the CRMP.**
>
> **The CRMP and any subsequent management activities, including road system design and wildlife monitoring, will be coordinated with the Helena and Deer Lodge National Forests and the Montana Department of Fish, Wildlife, and Parks.**

Commercial forest land in the Eightmile Creek, Boulder-Clancy, Marysville, and Rogers Pass areas will receive high priority for forest management. Special harvest restrictions will be applied in key elk seasonal use areas. Forest management guidelines are summarized in Table 2-7.

Issue 5: Land Ownership Adjustments. Priority areas have been established for retention and acquisition, disposal, and further study. Land ownership adjustment guidelines are summarized in Table 2-8.

Issue 6: Mineral Exploration and Development. All public land in the Scratchgravel Hills will remain open to mineral entry and development. All other public land in the resource area will remain open unless previously withdrawn from mineral entry. Mineral exploration and development guidelines are summarized in Table 2-9.

Issue 7: Motorcycle Use Areas. The Scratchgravel Hills and Limestone Hills will be closed to organized motorcycle events. The Hilger Hills, Spokane Hills, and Marysville areas will remain available for further consideration. All other public land in the resource area will be managed as outlined in Management Guidance Common to All Alternatives. Motorcycle use area allocations are summarized in Table 2-10.

Issue 8: Motorized Vehicle Access. The Scratchgravel Hills and Limestone Hills will be identified for motorized vehicle restrictions. The Blind Horse Creek, Ear Mountain, Chute Mountain, and Deep Creek/Battle Creek areas will be closed to motorized vehicle access. The Hilger Hills will remain open to motorized vehicles. All other public land in the resource area will be managed as outlined in Management Guidance Common to All

TABLE 2-7
SUMMARY OF FOREST MANAGEMENT GUIDELINES
(in acres)

	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Total Forested Acres	82,021	82,021	82,021	82,021	82,021
Total Commercial Forest Land (CFL)	63,081	63,081	63,081	63,081	63,081
Nonsuitable CFL	4,982	4,982	4,982	4,982	4,982
Suitable CFL	58,099	58,099	58,099	58,099	58,099
CFL Set Aside for Wildlife	3,729	**8,035**	3,729	3,729	0
CFL Set Aside for Recreation	1,468	1,468	1,468	1,468	0
Total CFL Set Aside	5,197	**9,503**	5,197	5,197	0
Total Available Base	52,902	**48,956**	52,902	52,902	58,099
TPCC Restricted Base	41,849	**37,888**	41,849	41,849	45,947
Nonrestricted Base	11,053	**10,708**	11,053	11,053	12,152
Total Woodland	18,940	18,940	18,940	18,940	18,940
Woodland Set Aside for Special Designations	0	2,650	0	1,000	0
Woodland Set Aside for Wilderness Recommendations	0	0	0	1,950	0
Total Woodland Set Aside	0	2,650	0	2,950	0
Available Woodland	18,940	16,290	18,940	15,990	18,940
Allowable Cut	1.0[1,2]	**23.95**[1]	26.45[1]	26.45[1]	29.0[1]
Miles of Road Construction	2.5[3]	**48**[3]	53[3]	53[3]	58[3]
Acres Cut/Decade (@ 3 m bd ft/acre)	333	**7,983**[4]	8,816	8,816	9,667

[1]Million board feet per decade
[2]The figure under Current Status represents actual harvest
[3]Miles per decade
[4]The figure does not include acres that may be cut to improve wildlife habitat in Management Unit 36.

TABLE 2-8
SUMMARY OF LAND OWNERSHIP ADJUSTMENT GUIDELINES
(in acres)

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Retention	311,337[1]	282,283	311,337[1]	282,283	282,283
Disposal	0	**25,317**	0	25,637	25,637
Further Study	0	**2,697**	0	3,417	3,417

[1]For purposes of analysis, all public land in the resource area is shown in the retention category under Current Status and Alternative B (No Action). In actual practice, some public land could be sold or exchanged as a result of tract-specific land use plan amendments. Approximately 400 acres of public land have been sold or exchanged since the Headwaters Resource Area was established in 1976.

TABLE 2-9
SUMMARY OF MINERAL EXPLORATION AND DEVELOPMENT GUIDELINES
(in acres of federal minerals)[1]

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Withdrawn From Entry[1]	53,606	42,019	42,019	44,979	42,019
Available For Entry	601,899	613,486	613,486	610,526	613,486

[1]The acreage withdrawn from mineral entry is expected to decrease under all alternatives as a result of the withdrawal review process. The acreage estimates shown above are based on recommendations that have been developed for approximately 50% of the withdrawn land in the resource area.

TABLE 2-10
SUMMARY OF MOTORCYCLE USE AREA GUIDELINES
(in acres)

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Available For Further Consideration	311,337	234,134	266,149	208,824	266,149
Consideration Closed to Organized Events	0	77,203	45,188[1]	102,513	45,188

[1]Current land use planning guidance for the resource area does not preclude consideration of any public land for organized motorcycle events. However, approximately 45,188 acres appear to be unsuitable for such use based on existing wildlife, watershed, and other guidance not directed specifically to the issue of organized motorcycle events. For analysis purposes, these acres are shown as closed to organized events under the No Action alternative.

Alternatives. Motorized vehicle access allocations are summarized in Table 2-11.

Issue 9: Utility and Transportation Corridors. Avoidance areas will be established in the Scratchgravel Hills, Limestone Hills, and Sleeping Giant areas, and along the Smith River, Jefferson River and the Missouri River from Three Forks to Holter Dam. Windows will be established where major facilities cross avoidance areas. All other public land in the resource area will be managed as outlined in Management Guidance Common to All Alternatives. Utility and transportation corridor allocations are summarized in Table 2-12.

Issue 10: Coal Leasing. All federal coal within the Great Falls Coal Field will be available for further consideration for coal leasing, pending further study. Surface occupancy generally will be prohibited within public road corridors, rights-of-way, **floodplains,** and key wildlife use areas. For analysis purposes, it is assumed that three underground mines would be developed in the Stockett area to supply enough coal (approximately 1.2 million short-tons annually) for Montana Power Company's proposed 350 MW Salem Project near Great Falls. It is also assumed that mine development would begin in 1993 and production would begin in 1996. These assumptions are made primarily to allow for projection of social and economic impacts. The acreage to be disturbed by such operations for surface facilities cannot be estimated at this time. To date, no proposals for mining coal in the Great Falls Coal Field have been received by the BLM. Details regarding application of the coal unsuitability criteria are included in Appendix H. Coal leasing allocations are summarized in Table 2-13.

Issue 11: Special Designations. The Blind Horse Creek, Ear Mountain, Chute Mountain, and Deep Creek/Battle Creek areas will be designated as Outstanding Natural Areas as illustrated on the Special Designations: Alternative A map. The Sleeping Giant area will be designated as an Area of Critical Environmental Concern as illustrated on the Sleeping Giant Special Designations: Alternative A and Alternative C map. Special designations are summarized in Table 2-14.

TABLE 2-11
SUMMARY OF MOTORIZED VEHICLE ACCESS GUIDELINES
(in acres)

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Open	311,337	79,875	111,890	76,472	111,890
Prioritized For Restrictions	0	219,404	199,447 [1]	216,828	199,447
Closed	0	12,058	0	18,037	0

[1]Current land use planning guidance for the resource area does not identify any public land as priority areas for restrictions. However, approximately 199,447 acres appear to qualify for seasonal or other restrictions based on existing wildlife, watershed, and other guidance not directed specifically to the issue of motorized vehicle access. For analysis purposes, these acres are shown as prioritized for restrictions under the No Action alternative.

TABLE 2-12
SUMMARY OF UTILITY AND TRANSPORTATION CORRIDOR GUIDELINES
(in acres)

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Exclusion Area	0	0	0	17,197	0
Avoidance Area	0	74,489	22,171 [1]	63,271	22,171
Window	0	952	0	952	0
Available For Further Consideration	311,337	235,896	289,116	229,917	289,166

[1]Current land use planning guidance for the resource area does not identify any public land as avoidance areas. However, approximately 22,171 acres appear to be unsuitable for utility and transportation corridor development based on existing wildlife, watershed, and other guidance not directed specifically to this issue. For analysis purposes, these acres are shown as avoidance areas under the No Action alternative.

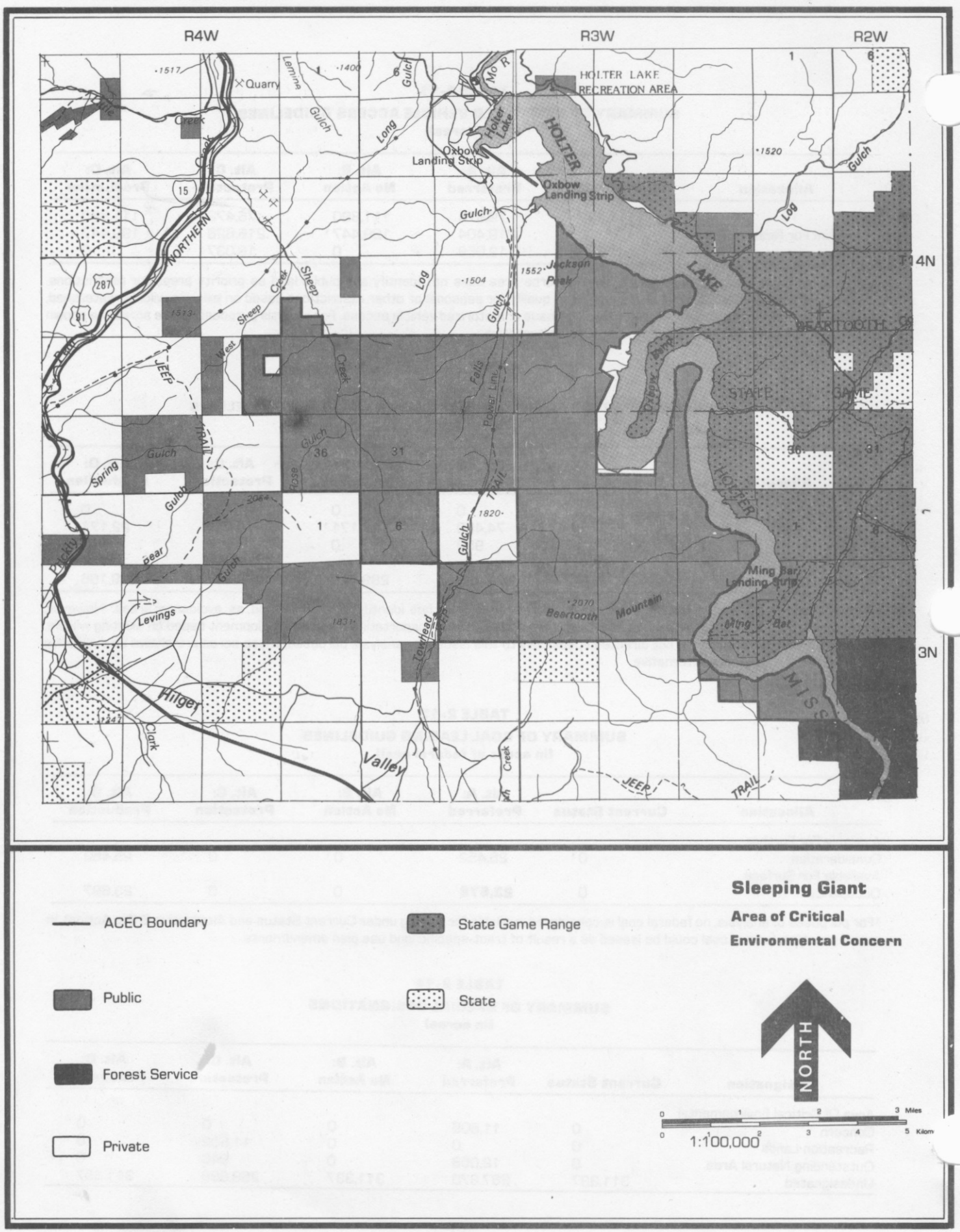
TABLE 2-13
SUMMARY OF COAL LEASING GUIDELINES
(in acres of federal coal)

Allocation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Available For Further Consideration	0 [1]	25,452	0 [1]	0	25,452
Available For Surface Occupancy	0	**23,672**	0	0	23,697

[1]For purposes of analysis, no federal coal is considered available for leasing under Current Status and Alternative B (No Action). In actual practice, federal coal could be leased as a result of tract-specific land use plan amendments.

TABLE 2-14
SUMMARY OF SPECIAL DESIGNATIONS
(in acres)

Designation	Current Status	Alt. A: Preferred	Alt. B: No Action	Alt. C: Protection	Alt. D: Production
Area Of Critical Environmental Concern	0	11,609	0	0	0
Recreation Lands	0	0	0	11,609	0
Outstanding Natural Area	0	12,058	0	840	0
Undesignated	311,337	287,670	311,337	298,888	311,337



Sleeping Giant

Area of Critical Environmental Concern

ACEC Boundary

State Game Range

Public

State

Forest Service

Private

NORTH

0 1 2 3 Miles

0 1 2 3 4 5 Kilom

1:100,000

Alternative B: No Action

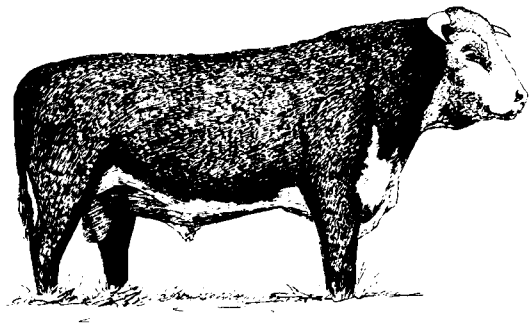
Theme

The no action alternative portrays a continuation of present management direction. Because much of the Headwaters Resource Area currently lacks formal management direction that has been established through approved land use plans, the management direction that is assumed for the no action alternative was derived through an interdisciplinary process of extrapolating or projecting past management actions throughout the resource area. The purpose of the no action alternative is to provide a baseline for the comparison of other alternatives.

Issue Resolution Guidelines

Issue 1: Oil and Gas Leasing and Development. At the present time, all federal oil and gas rights along the Rocky Mountain Front (except within the Sun River Game Range) are under lease. Most of the existing leases were issued with standard stipulations. As these leases expire and are reissued, special stipulations (including no surface occupancy) are attached as needed, based on the application of guidelines contained in the Butte District Oil and Gas Leasing Environmental Assessment. Application of these guidelines would result in the leasing and lease development decisions shown on the Oil and Gas Leasing Stipulations: Alternative B map, and summarized in Table 2-3.

Issue 2: Grazing Allotment and Riparian Habitat Management. The no action alternative, which constitutes the existing management direction, is considered to be the initial proposed action for livestock grazing in all allotments. Therefore, no short-term adjustments in livestock use would be proposed. However, all I allotments would be assigned a priority ranking so that future investments in range improvements, treatments, and monitoring would be directed to allotments with the greatest potential for improvement of wildlife, watershed, and vegetation conditions and livestock forage production (see Appendix E). Adjustments proposed under this alternative are summarized in Table 2-4.



Issue 3: Wilderness Study Recommendations. All areas being studied for wilderness would be recommended as nonsuitable for wilderness designation. Individual area boundaries are displayed on the alternative maps for Blind Horse Creek, Chute Mountain, Deep Creek/Battle Creek, Black Sage, and the Yellowstone River Island. Recommendations are summarized in Table 2-6.

Issue 4: Forest Management. All public land would be available for forest management except for the Scratchgravel Hills. Commercial forestland in the Eightmile Creek, Elkhorn, Boulder-Clancy, Marysville, and Rogers Pass areas would receive high priority for forest management. Special harvest restrictions would be applied in key elk seasonal use areas. Forest management guidelines are summarized in Table 2-7.

Issue 5: Land Ownership Adjustments. For purposes of analysis, all public land would be retained in public ownership and there would be no adjustments in the land ownership pattern. In actual practice, some public land could be sold or exchanged as a result of tract-specific land use plan amendments. Land ownership adjustment guidelines are summarized in Table 2-8.

Issue 6: Mineral Exploration and Development. All public land in the Scratchgravel Hills would remain open to mineral entry and development. All other public land in the resource area would remain open unless previously withdrawn from mineral entry. Mineral exploration and development guidelines are summarized in Table 2-9.

Issue 7: Motorcycle Use Areas. The Scratchgravel Hills, Limestone Hills, Hilger Hills, Spokane Hills, and Marysville areas would remain available for further consideration. All other public land in the resource area would be managed as outlined in Management Guidance Common to all Alternatives. Motorcycle use area allocations are summarized in Table 2-10.

Issue 8: Motorized Vehicle Access. The Scratchgravel Hills, Limestone Hills, and Hilger Hills would remain open to motorized vehicle access. All other public land in the resource area would be managed as outlined in Management Guidance Common to all Alternatives. Motorized vehicle access allocations are summarized in Table 2-11.

Issue 9: Utility and Transportation Corridors. Avoidance areas would not be established in the Scratchgravel Hills, Limestone Hills, and Sleeping Giant areas, or along the Smith River, Jefferson River and the Missouri River from Three Forks to Holter Dam. No windows would be established. The above lands would continue to be man-

aged as available for further consideration. All other public land in the resource area would be managed as outlined under Management Guidance Common to all Alternatives. Utility and transportation corridor allocations are summarized in Table 2-12.

Issue 10: Coal Leasing. No federal coal would be made available for further consideration for coal leasing. Coal leasing allocations are summarized in Table 2-13.

Issue 11: Special Designations. No special designations would be established. Special designations are summarized in Table 2-14.

Alternative C: Protection Alternative

Theme

The protection alternative places primary emphasis on maintaining or improving important environmental values. Resource use and development would be permitted to the extent compatible with the environmental protection emphasis. The goal of this alternative is to change present management direction so that the identified issues are resolved in a manner that generally places highest priority on the maintenance or improvement of the condition of key wildlife and riparian habitats, wilderness quality, and nonmotorized recreation opportunities.

Issue Resolution Guidelines

Issue 1: Oil and Gas Leasing and Development. All seasonally important big game and threatened and endangered species habitat on the Rocky Mountain Front would be identified for no surface occupancy. No leasing would be permitted within the core of the area identified for no surface occupancy, if reservoir drainage would not be feasible. Guidelines are displayed on the Oil and Gas Leasing Stipulations: Alternative C map, and are summarized in Table 2-3.

Issue 2: Grazing Allotment and Riparian Habitat Management. Short-term downward adjustments in livestock use would be proposed for thirty-four I allotments, where inventory and monitoring data indicate changes could be made to improve wildlife, watershed, and/or vegetation condition. Adjustments in allotment management practices would be prioritized to achieve wildlife, watershed, and vegetation condition objectives before achieving livestock forage production objectives (see Appendix E). Adjustments proposed under this alternative are summarized in Table 2-4.

Issue 3: Wilderness Study Recommendations. All areas being studied would be recommended for wilderness designation. Recommendations for the Chute Mountain and Deep Creek/Battle Creek areas would be contingent on the results of the Forest Service's RARE II study of the Deep Creek/Reservoir North area. Individual area boundaries are displayed on the alternative maps for Blind Horse Creek, Chute Mountain, Deep Creek/Battle Creek, Black Sage, and the Yellowstone River Island. Recommendations are summarized in Table 2-6.

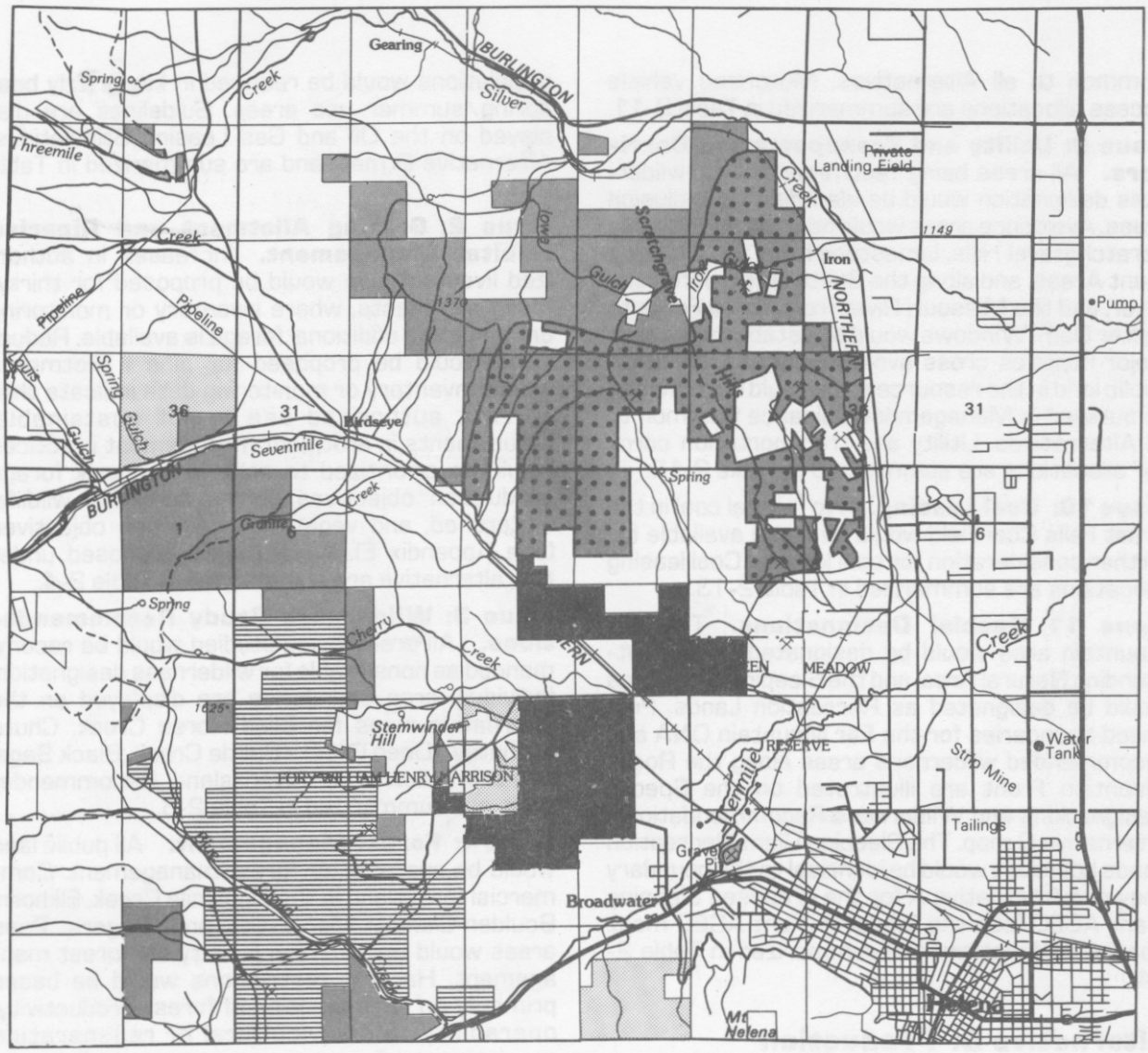
Issue 4: Forest Management. Commercial forestland in the Scratchgravel Hills, areas being studied for wilderness, and the Sleeping Giant area would be set aside from the harvestable base. Key elk seasonal use areas also would be set aside or restricted. All remaining public land would be available for harvest, and commercial forest land in the Eightmile Creek, Elkhorn, Boulder-Clancy, Marysville, and Rogers Pass areas would receive high priority for forest management. Forest management objectives would place special emphasis on the protection or enhancement of key mule deer and elk habitat. Forest management guidelines are summarized in Table 2-7.

Issue 5: Land Ownership Adjustments. Priority areas would be established for retention and acquisition, disposal, and further study. Land ownership adjustment guidelines are summarized in Table 2-8.

Issue 6: Mineral Exploration and Development. Approximately 2,960 acres of public land in the Scratchgravel Hills would be withdrawn from mineral entry in an effort to protect the groundwater recharge area for adjacent rural subdivisions (see the Scratchgravel Hills Proposed Mineral Withdrawal map). All other public land in the resource area would remain available unless previously withdrawn from mineral entry. Mineral exploration and development guidelines are summarized in Table 2-9.

Issue 7: Motorcycle Use Areas. The Scratchgravel Hills, Limestone Hills, Hilger Hills, Spokane Hills, and Marysville areas would be closed to organized motorcycle events. All other public land in the resource area would be managed as outlined in Management Guidance Common to all Alternatives. Motorcycle use area allocations are summarized in Table 2-10.

Issue 8: Motorized Vehicle Access. All areas being studied for wilderness would be closed to motorized vehicle access. The Scratchgravel Hills, Limestone Hills, and Hilger Hills would be identified for motorized vehicle restrictions. All other public land in the resource area would be managed as outlined in Management Guidance



Scratchgravel Hills Proposed Mineral Withdrawal Alternative C Only

Public Surface/Subsurface

Military Reservation

Public Subsurface

State

Private

Proposed Mineral Withdrawal Area

NORTH

1:100,000

0 1 2 3 Miles

0 1 2 3 4 5 Kilometers

Common to all Alternatives. Motorized vehicle access allocations are summarized in Table 2-11.

Issue 9: Utility and Transportation Corridors. All areas being recommended for wilderness designation would be identified as exclusion areas. Avoidance areas would be established in the Scratchgravel Hills, Limestone Hills, and Sleeping Giant Areas, and along the Smith River, Jefferson River, and the Missouri River from Three Forks to Holter Dam. Windows would be established where major facilities cross avoidance areas. All other public land in the resource area would be managed as outlined in Management Guidance Common to all Alternatives. Utility and transportation corridor allocations are summarized in Table 2-12.

Issue 10: Coal Leasing. No federal coal in the Great Falls Coal Field would be made available for further consideration for coal leasing. Coal leasing allocations are summarized in Table 2-13.

Issue 11: Special Designations. The Ear Mountain area would be designated as an Outstanding Natural Area, and the Sleeping Giant area would be designated as Recreation Lands. Proposed boundaries for the Ear Mountain ONA and recommended wilderness areas along the Rocky Mountain Front are illustrated on the Special Designations and Wilderness Recommendations: Alternative C map. The Sleeping Giant Recreation Lands boundary would be identical to the boundary shown in Alternative A for the proposed Sleeping Giant ACEC [see the Sleeping Giant ACEC map]. Special designations are summarized in Table 2-14.

Alternative D: Production Alternative

Theme

The production alternative places primary emphasis on making public land and resources available for use and development. Environmental values would be protected to the extent required by applicable laws, regulations, and policies. The goal of this alternative is to change present management direction so that the identified issues are resolved in a manner that generally places highest priority on the production of oil and gas, coal, livestock forage, and timber.

Issue Resolution Guidelines

Issue 1: Oil and Gas Leasing and Development. No areas outside of the Sun River Game Range would be identified for no surface occupancy or no leasing. Seasonal exploration stipulations would be required in bighorn sheep, elk, and mule deer winter/spring range, and mountain goat kidding areas. Seasonal exploration and production stipulations would be required in key grizzly bear spring/summer use areas. Guidelines are displayed on the Oil and Gas Leasing Stipulations: Alternative D map, and are summarized in Table 2-3.

Issue 2: Grazing Allotment and Riparian Habitat Management. Increases in authorized livestock use would be proposed for thirty-four I allotments, where inventory or monitoring data indicate additional forage is available. Reductions would be proposed for nine I allotments where inventory or monitoring data indicate that current authorized use is not sustainable. Adjustments in allotment management practices would be prioritized to achieve livestock forage production objectives before achieving wildlife, watershed, and vegetation condition objectives (see Appendix E). Adjustments proposed under this alternative are summarized in Table 2-4.

Issue 3: Wilderness Study Recommendations. All areas being studied would be recommended as nonsuitable for wilderness designation. Individual area boundaries are displayed on the alternative maps for Blind Horse Creek, Chute Mountain, Deep Creek/Battle Creek, Black Sage, and the Yellowstone River Island. Recommendations are summarized in Table 2-6.

Issue 4: Forest Management. All public land would be available for forest management. Commercial forestland in the Eightmile Creek, Elkhorn, Boulder-Clancy, Marysville, and Rogers Pass areas would receive high priority for forest management. Harvest restrictions would be based primarily on consideration of forest productivity, operability, and silvicultural or regeneration requirements. Forest management guidelines are summarized in Table 2-7.

Issue 5: Land Ownership Adjustments. Priority areas would be established for retention and acquisition, disposal, and further study. Land ownership adjustment guidelines are summarized in Table 2-8.

Issue 6: Mineral Exploration and Development. All public land in the Scratchgravel Hills would remain open to mineral entry and development. All other public land in the resource area would remain open unless previously withdrawn from mineral entry. Mineral exploration and development guidelines are summarized in Table 2-9.

Issue 7: Motorcycle Use Areas. The Scratchgravel Hills, Limestone Hills, Hilger Hills, Spokane Hills, and Marysville areas would remain available for further consideration. All other public land in the resource area would be managed as outlined in Management Guidance Common to all Alternatives. Motorcycle use area allocations are summarized in Table 2-10.

Issue 8: Motorized Vehicle Access. The Scratchgravel Hills, Limestone Hills, and Hilger Hills would remain open to motorized vehicle access. All other public land in the resource area would be managed as outlined in Management Guidance Common to all Alternatives. Motorized vehicle access allocations are summarized in Table 2-11.

Issue 9: Utility and Transportation Corridors. The Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek areas would continue to be managed as avoidance areas. Avoidance areas would not be established in the Scratchgravel Hills, Limestone Hills, and Sleeping Giant areas, or along the Smith River, Jefferson River, and the Missouri River from Three Forks to Holter Dam. No windows would be established. The above lands would continue to be managed as available for further consideration. All other public land in the resource area would be managed as outlined under Management Guidance Common to all Alternatives. Utility and transportation corridor allocations are summarized in Table 2-12.

Issue 10: Coal Leasing. All federal coal in the Great Falls coal field would be available for further consideration for coal leasing, pending further study. Surface occupancy generally would be prohibited within public road corridors, rights-of-way, and key wildlife use areas. For analysis purposes, it is assumed that three underground mines would be developed in the Stockett area to supply enough coal (approximately 1.2 million short-tons annually) for Montana Power Company's proposed 350 MW Salem Project near Great Falls. It is also assumed that mine development would begin in 1993 and production would begin in 1996. These assumptions are made primarily to allow for projection of social and economic impacts. The acreage to be disturbed by such operations for surface facilities cannot be estimated at this time. To date, no proposals for mining coal in the Great Falls Coal Field have been received by the BLM. Details regarding applications of the coal unsuitability criteria are included in Appendix H. Coal leasing allocations are summarized in Table 2-13.

Issue 11: Special Designations. No special designations would be established. Special designations are summarized in Table 2-14.

COMPARISON OF ALTERNATIVES

Table 2-15 summarizes the major land allocations and resource outputs that would occur under each alternative. Table 2-16 summarizes the environmental consequences expected under each alternative. For additional information regarding the environmental effects of each alternative, refer to the Environmental Consequences chapter.

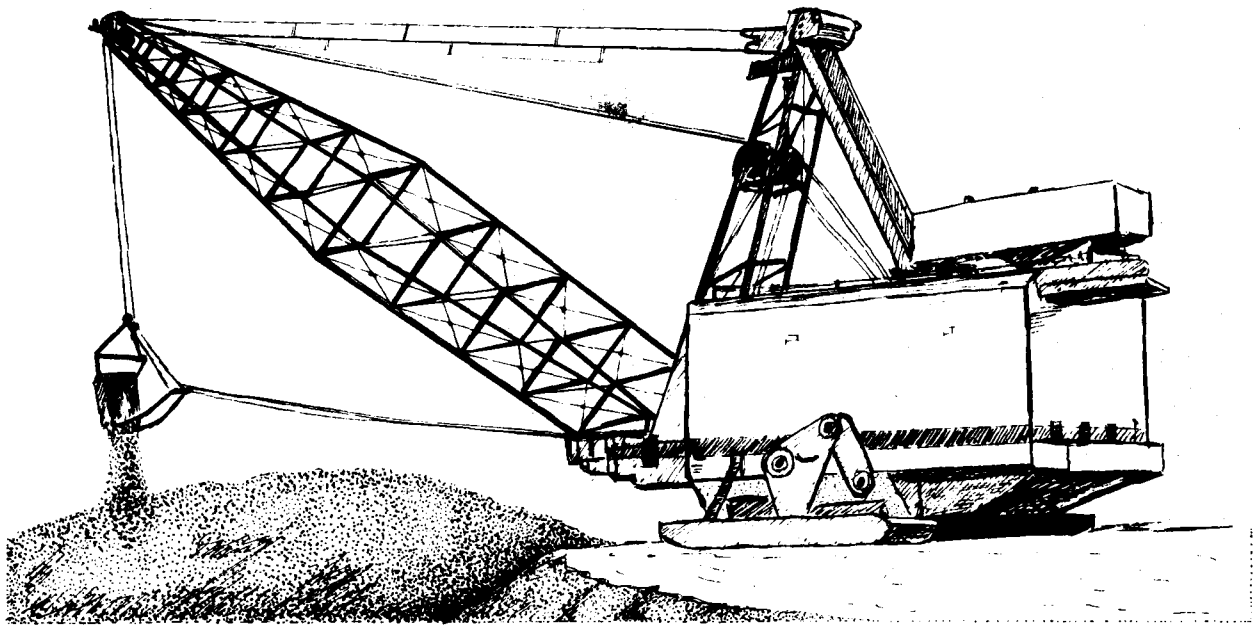


TABLE 2-15

COMPARISON OF ALTERNATIVES: SUMMARY OF ALLOCATIONS/OUTPUTS BY ISSUE

Issue	Allocation or Output[1]	Unit of Measure	Alt. A Preferred	Alt. B No Action	Alt. C Protection	Alt. D Production
Oil and Gas Leasing & Development	Standard Stipulations	acres fed. min.	272,449	272,449	271,324	272,703
	Special Stipulations	acres fed. min.	339,208	347,103	302,903	356,107
	No Surface Occupancy[2]	acres fed. min.	22,950	17,528	42,751	11,821
	No Leasing	acres fed. min.	20,898	18,425	38,527	14,874
	Standard Stipulations-RMF[3]	acres fed. O&G	36,160	36,160	34,740	36,480
	Special Stipulations-RMF	acres fed. O&G	49,500	59,460	3,700	70,820
	No Surface Occupancy-RMF	acres fed. O&G	14,040	7,200	39,020	0
	No Leasing-RMF	acres fed. O&G	18,550	15,430	40,790	10,950
Grazing Allotment & Riparian Habitat Management	Initial Livestock Forage Target	AUMs	29,297	31,501	27,036	33,954
	Livestock Forage Prod.[4]	AUMs	33,417	33,417	28,217	38,618
	Satisfactory Riparian Habitat[4]	miles of streambank	**130**	123	135.5	105
Wilderness Study	Proposed Wilderness Recommendations	acres fed. surface	0	0	17,197	0
Forest Management	Total Commercial Forest Set Aside	acres fed. surface	**9,503**	5,197	5,197	0
	Yield	mmbf/decade[6]	**24.0**	26.5	26.5	29.0
Land Ownership Adjustments	Retention Category	acres fed. surface	**283,323**	311,337	282,283	282,283
	Disposal Category	acres fed. surface	**25,317**	0	25,637	25,637
	Further study	acres fed. surface	**2,697**	0	3,417	3,417
Mineral Exploration & Development	Withdrawn from entry	acres fed. min.	42,019	42,019	44,979	42,019
	Available for entry	acres fed. min.	613,486	613,486	610,526	613,486
Motorcycle Use Areas	Available for further consideration	acres fed. surface	234,134	266,149	208,824	266,149
	Closed to organized events	acres fed. surface	77,203	45,188	102,513	45,188
Motorized Vehicle Access	Open	acres fed. surface	79,875	111,890	76,472	111,890
	Prioritized for restrictions	acres fed. surface	219,404	199,447	216,828	199,447
	Closed	acres fed. surface	12,058	0	18,037	0
Utility and Transportation Corridors	Exclusion Areas	acres fed. surface	0	0	17,197	0
	Avoidance Areas	acres fed. surface	74,489	22,171	63,271	22,171
	Windows	acres fed. surface	952	0	952	0
	Available for further consideration	acres fed. surface	235,896	289,166	229,917	289,166
Coal Leasing consideration	Available for further	acres fed. coal	25,452	0	0	25,452
	Available for surface occupancy	acres fed. coal	**23,672**	0	0	23,697
Special Designations	Area of Critical Environmental Concern	acres fed. surface	11,609	0	0	0
	Recreation Lands	acres fed. surface	0	0	11,609	0
	Outstanding Natural Areas	acres fed. surface	12,058	0	840	0
	Undesignated	acres fed. surface	287,670	311,337	298,888	311,337

[1]All allocations or output estimates are for the entire Headwaters Resource Area unless otherwise indicated. All outputs assume adequate funding and manpower.

[2]Acres identified for no surface occupancy do not include areas which normally are not occupied under standard stipulations, e.g. slopes exceeding 30% and streamside buffer strips.

[3]RMF: Rocky Mountain Front

[4]Long-term estimate; assumes adequate funding to implement plan over 20-year period

[5]HRA: Headwaters Resource Area

[6]mmbf: million board feet

TABLE 2-16

COMPARISION OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

ENVIRONMENTAL COMPONENT	EXISTING SITUATION	ALTERNATIVE A: PREFERRED		ALTERNATIVE B: NO ACTION		ALTERNATIVE C: PROTECTION		ALTERNATIVE D: PRODUCTION	
		SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
AIR QUALITY	Air quality would not be significantly affected under any alternative.								
SOIL AND WATER RESOURCES									
Watershed Condition	—	minor improvement	moderate improvement	minor improvement	moderate improvement	minor improvement	moderate-high improvement	minor deterioration	minor deterioration
Water Quality	generally good to excellent	no significant change	minor improvement	no significant change	minor improvement	no significant change	moderate improvement	no significant change	minor deterioration
ENERGY AND MINERALS									
Oil and Gas—Rocky Mountain Front (in acres)									
Leased with standard stipulations	86,050	decreasing	36,160	decreasing	36,160	decreasing	34,740	decreasing	36,480
Leased with special stipulations	17,700	increasing	49,500	increasing	59,460	decreasing	3,700	increasing	70,820
Leased with no surface occupancy	3,550	increasing	14,040	increasing	7,200	increasing	39,020	decreasing	0
Unleased	10,950	increasing	18,550	increasing	15,430	increasing	40,790	no change	10,950
Oil and Gas—Headwaters Resource Area (in acres)									
Leased with standard stipulations	450,154	decreasing	272,449	decreasing	272,449	decreasing	271,324	decreasing	272,703
Leased with special stipulations	163,333	increasing	339,208	increasing	347,103	increasing	302,903	increasing	356,107
Leased with no surface occupancy	23,550	decreasing	22,950	decreasing	17,528	increasing	42,751	decreasing	11,821
Unleased	12,918	increasing	20,898	increasing	18,425	increasing	38,527	increasing	14,874
Locatable Minerals (in acres)									
Withdrawn from mineral entry	53,606	decreasing	42,019	decreasing	42,019	decreasing	44,979	decreasing	42,019
Available for entry	601,899	increasing	613,486	increasing	613,486	increasing	610,526	increasing	613,486
Coal (in millions of short tons)									
Available for further consideration for leasing	0	increasing	125.6	0	0	0	0	increasing	125.6
LANDS									
Land Ownership Pattern	highly fragmented	no significant change	minor improvement	no significant change	no significant change	no significant change	minor improvement	no significant change	minor improvement
Legal Accessibility	generally poor	no significant change	minor improvement	no significant change	no significant change	no significant change	minor improvement	no significant change	minor improvement
RECREATION									
Developed Recreaton Opportunities	Developed recreation opportunities would not be significantly affected under any alternative.								
Dispersed Recreation Opportunities									
Nonmotorized	—	no significant change	minor increase	no significant change	no significant change	no significant change	minor increase	no significant change	minor decrease
Motorized	—	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease
VISUAL QUALITY	Visual quality would not be significantly affected under any alternative.								
CULTURAL RESOURCES	Cultural resources would not be significantly affected under any alternative.								

TABLE 2-16 (cont.)

COMPARISION OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

ENVIRONMENTAL COMPONENT	EXISTING SITUATION	ALTERNATIVE A: PREFERRED		ALTERNATIVE B: NO ACTION		ALTERNATIVE C: PROTECTION		ALTERNATIVE D: PRODUCTION	
		SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
WILDERNESS RESOURCES	Five areas containing 17,197 acres under wilderness study	Potential loss of wilderness values, primarily because of oil and gas exploration and development on pre-FLPMA leases	Maintenance of wilderness values on 11,218 acres designated as Outstanding Natural Areas; potential loss of wilderness values on remaining 5,979 acres	Potential loss of wilderness values, primarily because of oil and gas exploration and development on pre-FLPMA leases	Potential loss of wilderness values in all areas	Potential loss of wilderness values, primarily because of oil and gas exploration and development on pre-FLPMA leases	Preservation of wilderness values in all areas through wilderness designation	Potential loss of wilderness values, primarily because of oil and gas exploration and development on pre-FLPMA leases	Potential loss of wilderness values in all areas
TIMBER RESOURCES									
Allowable Cut (million board feet per decade)	1.0 (actual cut)	increasing	**23.95**	increasing	26.45	increasing	26.45	increasing	29.0
Acres Cut per decade	333 (actual cut)	increasing	**7,983**	increasing	8,816	increasing	8,816	increasing	9,667
RANGE RESOURCES									
Ecological range condition (% of rangeland in HRA)									
Excellent	8%	no change	8%	no change	8%	increasing	15%	increasing	37%
Good	49%	increasing	67%	increasing	67%	decreasing	42%	no change	49%
Fair	40%	decreasing	24%	decreasing	24%	decreasing	39%	decreasing	13%
Poor	3%	decreasing	1%	decreasing	1%	increasing	4%	decreasing	1%
Livestock AUMs	31,501	29,297	33,417	31,501	33,417	27,036	28,217	33,954	38,618
FISH AND WILDLIFE HABITAT (unsatisfactory acres)									
Big Game—winter/spring habitat									
Elk	14,926 (23%)	minor decrease	moderate decrease	no significant change	moderate decrease	minor decrease	major decrease	minor increase	moderate increase
Mule Deer	27,763 (25%)	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	major decrease	moderate increase	moderate increase
Bighorn Sheep	1,035 (17%)	minor decrease	moderate decrease	no significant change	moderate decrease	minor decrease	moderate decrease	minor increase	moderate increase
Moose	3,888 (40%)	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	major decrease	moderate increase	moderate increase
Antelope	3,072 (22%)	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	moderate decrease	moderate increase	moderate increase
Big Game—summer/fall habitat									
Elk	5,922 (23%)	minor decrease	moderate decrease	no significant change	moderate decrease	minor decrease	major decrease	moderate increase	moderate increase
Mule Deer	1,015 (10%)	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	minor decrease	minor increase	minor increase
Bighorn Sheep	783 (8%)	minor decrease	minor decrease	no significant change	minor decrease	minor decrease	minor decrease	minor increase	minor increase

(Headwaters Final)

TABLE 2-16 (cont.)

COMPARISION OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

ENVIRONMENTAL COMPONENT	EXISTING SITUATION	ALTERNATIVE A: PREFERRED		ALTERNATIVE B: NO ACTION		ALTERNATIVE C: PROTECTION		ALTERNATIVE D: PRODUCTION	
		SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
Moose	748 (12%)	no significant change	minor decrease	no significant change	minor decrease	minor decrease	moderate decrease	minor increase	moderate increase
Antelope	3,259 (23%)	no significant change	minor decrease	minor decrease	minor decrease	minor decrease	moderate decrease	minor increase	moderate increase
Big Game—yearlong habitat									
Elk	2,142 (25%)	minor decrease	moderate decrease	no significant change	moderate decrease	minor decrease	major decrease	moderate increase	moderate increase
Mule Deer	10,521 (22%)	minor decrease	moderate decrease	no significant change	moderate decrease	minor decrease	major decrease	minor increase	minor increase
Bighorn Sheep	0 (0%)	no significant change	no significant change	no significant change	no significant change	no significant change	no significant change	no significant change	no significant change
Antelope	4,212 (21%)	no significant change	minor decrease	no significant change	minor decrease	minor decrease	moderate decrease	minor increase	major increase
Threatened and Endangered Species habitat									
Grizzly Bear (yearlong)	8,588 (40%)	minor decrease	major decrease	no significant change	major decrease	moderate decrease	major decrease	minor decrease	minor decrease
Gray Wolf	1,035 (6%)	minor decrease	moderate decrease	no significant change	moderate decrease	minor decrease	major decrease	minor increase	minor increase
Bald Eagle (miles)	2 (10%)	minor decrease	moderate decrease	no significant change	moderate decrease	moderate decrease	moderate decrease	no significant change	no significant change
Peregrine Falcon	0	no significant change	no significant change	no significant change	no significant change	no significant change	no significant change	no significant change	no significant change
Riparian Habitat (miles)									
I allotments	34 (49%)	no significant change	major decrease	no significant change	major decrease	minor decrease	major decrease	no significant change	minor decrease
M and C allotments	5 (7%)	no significant change	minor decrease	no significant change	minor decrease	minor decrease	moderate decrease	no significant change	no significant change
Waterfowl Habitat (acres)	525 (21%)	minor decrease	major decrease	minor decrease	major decrease	moderate decrease	major decrease	minor increase	minor increase
Fisheries Habitat (miles)	36 (38%)	minor decrease	major decrease	minor decrease	major decrease	moderate decrease	major decrease	no significant change	minor decrease
Upland Game Bird Habitat	—	minor decrease	moderate decrease	no significant change	moderate decrease	minor decrease	moderate decrease	minor increase	minor increase
SOCIAL AND ECONOMICS CONDITIONS									
Economic impact to livestock operators caused by decreases in AUMs		moderately significant	insignificant	none	none	moderately significant	moderately significant	moderately significant	insignificant
Economic impact to livestock operators caused by increases in AUMs		moderately significant	moderately significant	none	moderately significant	none	none	moderately significant	moderately to highly significant
Overall impact to regional economy				Insignificant under all alternatives					
Overall impact on attitudes				Insignificant under all alternatives					

SELECTION OF THE PREFERRED ALTERNATIVE

Each alternative considered in detail represents a comprehensive plan for managing all land and resources in the Headwaters Resource Area. However, what differentiates one alternative from another is the way each of the eleven issues would be resolved if that alternative were selected for implementation. Thus, selection of the preferred alternative was based largely on the effects of the alternative in resolving issues. Alternative A was selected as the preferred alternative, and the management direction for resolving each of the eleven issues under Alternative A is summarized below.

Oil and Gas Leasing and Development

Management Direction

Oil and gas leasing and development on slightly more than 80% of the federal minerals within the Headwaters Resource Area will continue to be administered in accordance with the general guidance provided by the Butte District Oil and Gas Leasing Environmental Assessment. This represents no change from current management direction, and is a reflection of the low level of oil and gas activity anticipated in the future throughout most of the area.

Federal minerals located along the Rocky Mountain Front will be administered in accordance with more specific lease stipulation guidance provided by this plan. The preferred alternative represents a change from current management direction because of the need to establish additional no surface occupancy restrictions within the boundaries of proposed Outstanding Natural Areas. This alternative will result in approximately 72% of the federal minerals along the Rocky Mountain Front remaining available for occupancy leasing (a decrease of 9%, or 9,960 acres, from current direction).

Rationale

The Rocky Mountain Front is a nationally significant area because of its high wildlife, recreation, and scenic values. It is also an area of high potential for oil and gas production, although to date, exploration of the area has yielded inconclusive results. The preferred alternative will provide needed protection for grizzly bear and other important wildlife habitat, and will preserve future management options for the proposed Blind Horse Creek, Ear Mountain, Chute Mountain, and Deep Creek/Battle Creek Outstanding Natural Areas, while still allowing oil and gas exploration and development to occur on most of the federal mineral estate within the Rocky Mountain Front area.

Grazing Allotment and Riparian Habitat Management

Management Direction

The preferred alternative will result in minor changes from current management direction. Short-term adjustments in livestock forage allocations will be proposed for twenty-six allotments containing 88,596 acres of public land, resulting in a 2,204 AUM (7%) net decrease in licensed livestock use within the resource area. Livestock grazing on 301 allotments will remain at current levels. Future upward or downward adjustments in livestock use will be based on monitoring studies.

Range improvements, treatments, and grazing systems will be implemented in accordance with current BLM policy, and will be designed to achieve specific multiple use objectives identified in the RMP for each allotment. Riparian habitat condition will be improved from unsatisfactory to satisfactory on approximately twenty-six miles of stream bank.

Rationale

The preferred alternative provides for significant improvement of vegetation, wildlife habitat, and riparian habitat conditions, while causing minimal disruptions in livestock use. The proposed 2,204 AUM reduction in licensed livestock use includes 1,999 AUMs of nonuse licensed during 1980-1982; thus, the reduction in actual livestock use will be approximately 205 AUMs. Allotments where resource conditions are unsatisfactory have been targeted for corrective action. Other allotments with high potential for livestock forage production will be managed with the goal of increasing future livestock use. This alternative strikes a balance between the protection or enhancement of environmental values and the production of additional livestock forage.

Wilderness Study Recommendations

Management Direction

None of the five areas under consideration will be recommended for wilderness designation. Three areas along the Rocky Mountain Front (Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek) will be administratively protected as Outstanding Natural Areas, while the Black Sage

and Yellowstone River Island Wilderness Study Areas will be managed without any special designation.

Rationale

The Black Sage and Yellowstone River Island WSAs possess moderate to low wilderness values and would be difficult to manage as wilderness. The three areas along the Rocky Mountain Front generally are characterized by moderate to high wilderness values, but pose significant manageability problems and may be underlain by oil and gas. The use of Outstanding Natural Area designations is preferred in this case because of the management flexibility such designations would allow if significant oil and gas reserves are proven to exist beneath these areas in the future. During the interim, special designation will permit essentially the same level of protection for scenic, recreational, and other values that wilderness designation would provide.

Forest Management

Management Direction

The preferred alternative will result in a minor change from current management direction, primarily in the Elkhorn area, where commercial forest land will be set aside from commercial harvest activities. Forest products will continue to be harvested on a sustained yield basis on other appropriate sites throughout the resource area. Intensive management, including investment of federal funds for forest management activities, will be focused in a few key areas with the highest potential for timber production and the lowest potential for conflicts with other resource values. Standard operating procedures developed for the protection of soils, water quality, scenic values, and wildlife habitat will continue to be applied. **Minor amounts of forested land will be set aside from harvest in the Scratchgravel Hills, Sleeping Giant, Rocky Mountain Front, and Elkhorn areas and within key wildlife habitats.**

Rationale

Current management direction is resulting in no significant conflicts between forest management activities and other resource uses and values. **However, in order to be consistent with Forest Service management guidelines for the Elkhorn Wildlife Management Area, timber harvest activity in this area will be allowed only for the improvement of wildlife habitat.** With adequate funding, the full **23.95** mmbf/decade of allowable harvest could be realized and would contribute to the economies of local communities.

Land Ownership Adjustments

Management Direction

Assuming that willing buyers and/or exchange proponents can be located, the preferred alternative will result in a significant change from the current management direction of retaining essentially all BLM-administered land in public ownership. In the future, tracts that are generally small, isolated, inaccessible, and low in public resource values will be disposed of through sale or exchange, **with exchange being the preferred method of disposal.** Some nonfederal land with high public values will be acquired through exchange in order to consolidate public ownership within retention areas. Approximately **2,700** acres will require additional study prior to making retention/disposal decisions.

Rationale

The current land ownership pattern within the Headwaters Resource Area is characterized by numerous isolated parcels of BLM-administered land that are inaccessible to the public and relatively difficult to manage. The preferred alternative will allow land ownership adjustments to occur, and this will result in improved management efficiency, fewer conflicts between the public and private landowners, and greater public benefits through improved access opportunities and consolidation of public land in retention areas. It will also allow for some public land to be put to more productive use in private or local government ownership.

Mineral Exploration and Development

Management Direction

The preferred alternative will result in no change from current management direction. All public land within the resource area will remain available for mineral entry and development, unless previously withdrawn. Some existing withdrawals may be revoked in the future, based on application of current withdrawal review procedures.

Rationale

The Scratchgravel Hills were considered for a possible new withdrawal in order to protect the groundwater recharge area for nearby homeowners from possible cyanide contamination or other types of pollution. The preferred alternative will not establish any new withdrawal in the Scratchgravel Hills because there are numerous patented and unpatented mining claims within the groundwater recharge area that would be unaffected by the withdrawal. Current federal and state regulations affecting mining and water qual-

ity are considered adequate to protect groundwater in the area, if the enforcing agencies are funded adequately.

Motorcycle Use Areas

Management Direction

The preferred alternative will result in no change from current management direction on approximately 90% of the resource area. The Montana City motorcycle use area will remain available for organized events. Public land along the Rocky Mountain Front, in the Jefferson, Smith, and Missouri river corridors, in the Holter Lake/Sleeping Giant area, and near Toston Dam will remain closed to organized motorcycle events. New closures will be established in the Scratchgravel Hills and Limestone Hills. Approximately 234,134 acres, or 75% of the resource area, will remain available for future consideration. Applications for staging events will be reviewed on a case-by-case basis and future decisions will be based on criteria provided in the RMP.

Rationale

The primary demand for organized events in the resource area appears to be in the Helena Valley and Limestone Hills areas. The preferred alternative will allow such use to continue on public land near Montana City, and will make other public land in the Hilger Hills, Spokane Hills, and Marysville areas available for future consideration. Public land in the Scratchgravel Hills will be closed to motorcycle races in order to protect open space, scenic, and other environmental values, while the Limestone Hills will be closed in order to avoid conflicts with National Guard activities, range users, and wildlife habitat.

Motorized Vehicle Access

Management Direction

Under the preferred alternative, motorized vehicle access will continue without restrictions on approximately 79,875 acres of public land. An additional 219,404 acres of public land will remain available for motorized access, but use may be restricted seasonally and/or to specific roads and trails. The proposed Blind Horse Creek, Ear Mountain, Chute Mountain, and Deep Creek/Battle Creek outstanding natural areas, comprising 12,058 acres, will be closed to motorized vehicle use. Future site-specific decisions regarding restrictions and closures will be based on criteria provided in the RMP (see Management Guidance Common to All Alternatives, Recreation Program).

Rationale

The preferred alternative generally will allow motorized vehicle use to continue where it has already been established, but will permit appropriate restrictions to be applied where necessary to protect important seasonal wildlife habitat, or to reduce conflicts with watershed values, nonmotorized recreation users, and adjoining landowners. This alternative balances the need for public access to public land and resources with the protection of important amenity values, and will allow for flexibility to adjust future access decisions based on changing public demands and resource conditions.

Utility and Transportation Corridors

Management Direction

Under the preferred alternative, approximately 236,838 acres, or 77%, of the public land in the resource area generally will remain available for development of utility and transportation corridors. The remaining public land, located primarily in the Rocky Mountain Front, Holter Lake/Sleeping Giant area, Scratchgravel Hills, Limestone Hills, and along the Jefferson, Smith, and upper Missouri rivers, will be identified for avoidance, and thus will generally be unavailable for corridor development. Future site-specific corridor development decisions will be based on criteria provided in the RMP.

Rationale

The preferred alternative reflects the need to make public land available for major utility and transportation corridor development, while avoiding, to the extent possible, the location of major facilities in areas of high public recreation use, high scenic and wildlife values, and residential areas. This alternative establishes general direction for corridor decisions, yet preserves flexibility for adapting future decisions to changing public demands and resource conditions.

Coal Leasing

Management Direction

The preferred alternative will make all federal coal within the Great Falls Coal Field available for further consideration for coal leasing, pending further study. Approximately 25,452 acres, containing about 125 million short-tons of federal coal, will be available for lease application. Individual lease applications and mining plans will be reviewed to assure protection of important social and environmental values.

Rationale

The preferred alternative maximizes the availability of federal coal for further consideration, pending the results of further study. Since the Great Falls Coal Field is considered suitable for mining only by underground methods, surface impacts generally will be relatively minor and/or mitigatable. Important seasonal wildlife habitat, **floodplains,** and utility and transportation rights-of-way have been identified that will be unavailable for surface occupancy, and use. Additional no occupancy areas may be identified in the future prior to leasing and at the time of mine plan review.

Special Designations

Management Direction

The preferred alternative will result in the designation of four Outstanding Natural Areas comprising 12,058 acres along the Rocky Mountain Front. These areas are Blind Horse Creek, Ear Mountain, Chute Mountain, and Deep Creek/Battle Creek. In addition, approximately 11,609 acres of public land will be designated as the Sleeping Giant Area of Critical Environmental Concern.

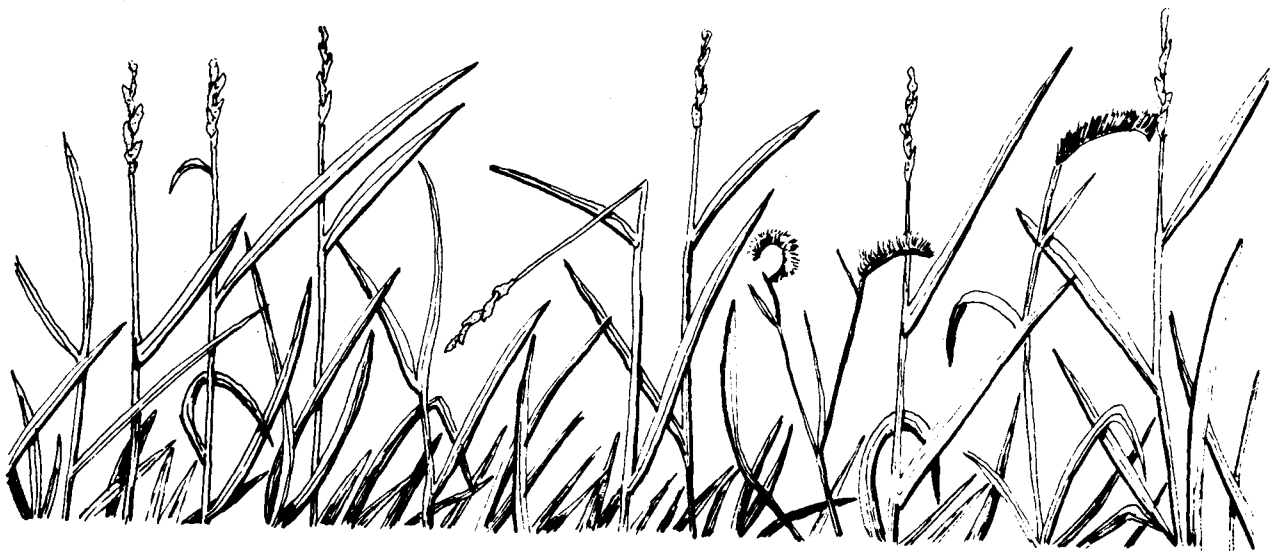
Rationale

The four proposed outstanding natural areas are considered nationally significant because of their high wildlife, recreation, and scenic values, and because of their association with the Bob Marshall ecosystem. They also are considered to have high potential for oil and gas production, although exploration in the area to date has yielded inconclusive results. The proposed designation of the areas, accompanied by a prohibition on surface occupancy, is intended to preserve future management options while providing full protection for surface values.

The proposed Area of Critical Environmental Concern designation for the Sleeping Giant area will provide added recognition of the high recreation and wildlife values in this area. The proximity of this area to the population centers of Great Falls and Helena, and its association with Holter Lake and the Gates of the Mountains Wilderness, suggests that future management emphasis should be directed primarily toward maintaining and enhancing the recreation, scenic, and wildlife values of the area.

MONITORING AND EVALUATION

The effects of implementing the Headwaters RMP will be monitored and evaluated on a periodic basis to assure that the desired results are being achieved. The general purposes, priorities, and methods to be used in monitoring and evaluation are identified in Appendix I.



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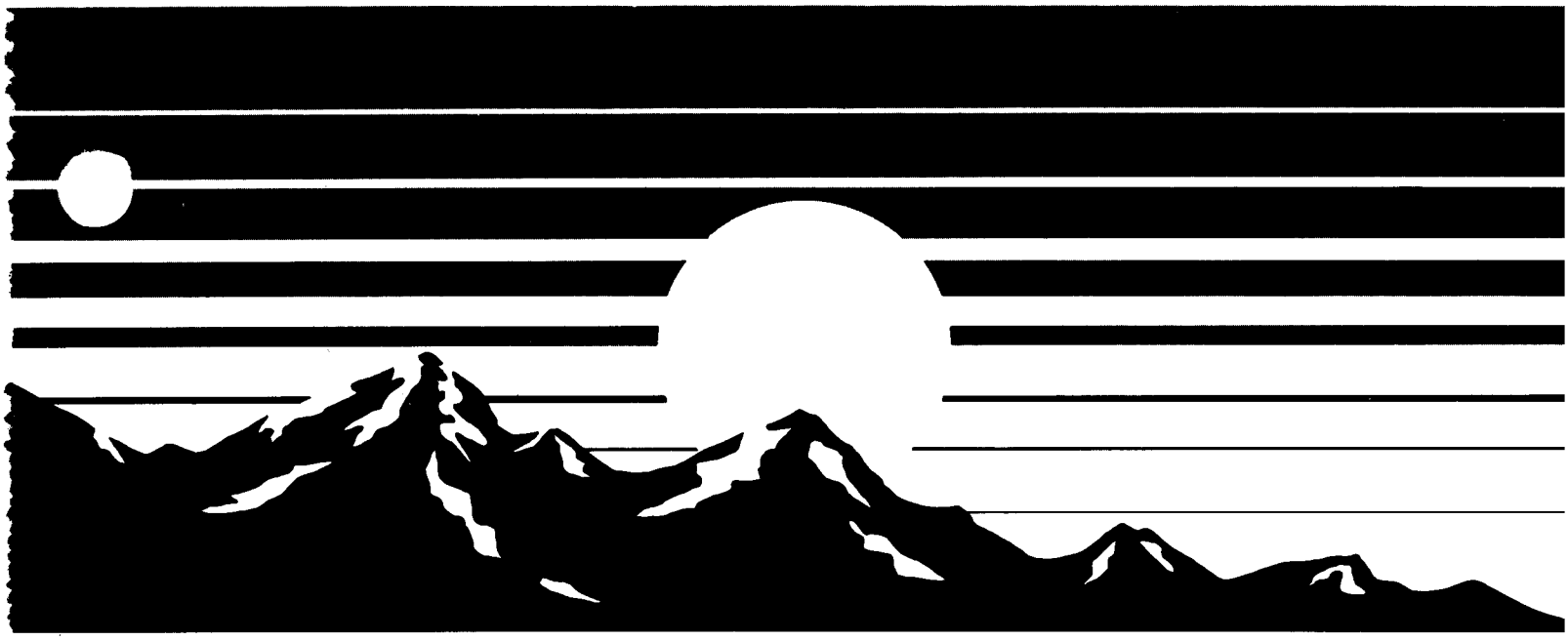
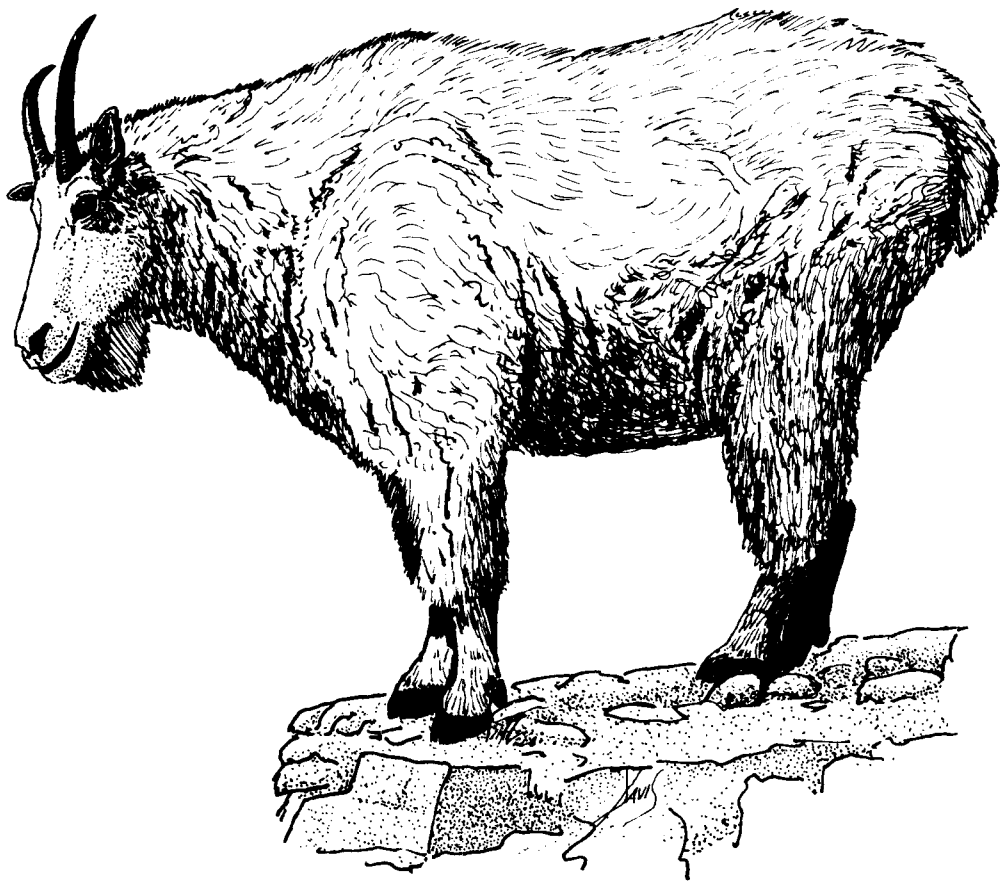


AFFECTED ENVIRONMENT

(See Draft Environmental Impact Statement)



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ALTERNATIVE A: PROPOSED RESOURCE MANAGEMENT PLAN

Impacts on Air Quality

The leasing and development of the Great Falls Coal Field could affect the air quality of the area. Dust from coal development would degrade the present air quality. Formation of acid precipitation due to the interaction of particulate matter with water vapor could also occur if a coal burning plant were built in the area.

Dust from oil and gas development activities, such as the construction of pumping stations and pipelines, could also have short-term impacts on air quality. In addition, the flaring off of gas at the well head would have some impact on air quality. Long-term impacts would occur if a refinery were built in the area.

Production of sour gas found along the Rocky Mountain Front would likely require development of one or more sweetening plants in order to remove contaminants such as hydrogen sulfide. Sour gas is particularly hazardous because of its toxicity; however, procedures are available to minimize impacts and risks.

In summary, this alternative could result in decreased air quality, primarily in the areas around the Great Falls Coal Field and Rocky Mountain Front. The significance of such impacts would be minor if appropriate mitigating measures are applied at the time of lease application and project development.

Impacts on Soil and Water Resources

By far the greatest impact to soils from timber harvesting, oil and gas exploration and development, mineral exploration and development, utility and transportation corridors, and coal leasing is the construction and use of roads. During the construction phase, the excavation of soil from its natural position alters the natural drainage of slopes and exposes soil to the elements. On steeper slopes, a cut at a critical point can trigger landslides. Roadside cut and fill slopes are bare erodible watersheds that increase sediment and drainage problems. Fills add weight to the underlying soil mass, and on steep hillsides they can also trigger landslides or slip failures. The added weight of fill material on faulty foundations can also result in slumps and settlements.

The construction and use of roads and trails will also cause compaction. Compaction of the soil by vehicles and heavy equipment severely limits root penetration, air and moisture infiltration, and vegetative growth. The amount of compaction will vary depending on the soil and its associated moisture content at the time of compaction. On most soils, compaction will decrease the infiltration rate, which in turn increases runoff. This accelerates erosion and creates rills and gullies.

Livestock use also causes soil compaction directly and indirectly. Trampling by livestock is a direct cause of compaction. Under the moist soil conditions normally encountered during spring runoff, even light trampling can effectively compact the soil.

Compaction caused indirectly by livestock occurs when exposed soils on overgrazed ranges are subject to rainfall impact. The beating action exerted by rainfall on bare soils seals the soil surface. This causes reduced infiltration, resulting in increased runoff and erosion.

Wind and water erosion can be a problem on many soils in the Rocky Mountain Front area. The erosion problem will occur when the areas are further disturbed by road and drill pad construction. Such areas will be more susceptible to erosion because of the increased area of bare soil. Soils that now show symptoms of erosion will be seriously impacted by any soil-disturbing activities. Rehabilitation of these soils will be more difficult because of past losses of topsoil and nutrients.

Trampling displacement is a form of erosion similar to water erosion. Like water erosion, trampling displacement is more evident as slopes increase. This form of erosion occurs most readily when the soil is very wet or very dry.

When plant cover is greatly reduced, either by grazing or other factors, sheet, rill, gully, and wind erosion are usually apparent. This results in a further loss of vegetative productivity as well as offsite sedimentation damage.

To reduce erosion, grazing systems that incorporate rest are more effective than annual season-long use. If livestock grazing were eliminated or substantially decreased, plants would initially respond with increased vigor, resulting in increased ground cover. This would reduce bare ground and erosion potential.

In timber harvesting, the type of harvest practice and method of yarding has a great deal of influence on the amount of erosion that may occur. Clearcutting, for example, can have the greatest detrimental impact on soils because of the substantial decrease in ground cover, which increases the potential for accelerated erosion. Clearcutting also increases the opportunity for landslides on noncohesive soils. Selective cutting, where a substantial number of trees are left, can have the least amount of impact on soils.

The method of yarding influences the amount of roads that must be built, as well as the number of skid trails and the amount of soil damage on each skid trail. The aerial yarding system has the least impact on soils, whereas yarding systems that drag logs over the soil have considerably higher detrimental consequences. Ruts are created and compacted, and channel runoff downslope. This increases the opportunity for rills and gullies. Motorcycle use also creates ruts that channel runoff and increase erosion.

Motorized vehicle impacts will be similar to those caused by motorcycle race events. However, the slopes would probably not be as steep. The susceptibility of the soils to move is a prime consideration for determining impacts.

Mine tailings could be another area of concern. These bare soils will naturally erode, thereby increasing sediment loads into any nearby creeks or intermittent drainages. Aside from the erosion aspect, toxic substances are occasionally brought to the surface and could make the soil around the tailings pile sterile. The more toxic tailings erode, the larger the area of possible sterilization. This impact would persist until the toxic materials were leached below root depth or until the area was rehabilitated.

Reserve and waste pits will be built near each oil and gas well to contain drilling muds and formation fluids. Such construction activities could affect slope stability in steeper areas. Additional slope failure and slumping could be induced by saturation from fluids or overloading by heavy equipment.

Oil spills, although not frequent, can occur on a site specific basis from time to time. Oil may seep into pits, berms, drainages, or low areas around wells. Permeable soils will be the most severly affected by oil seepage because they will allow the deepest oil penetration.

Fluids brought to the surface may be toxic to vegetation and act as soil sterilants. These toxic materials may persist for several years until they are broken down or leached from the soil profile. These sterilized areas will be conducive to accelerated erosion.

Those areas stipulated for no surface occupancy will have no impacts on soils from oil and gas development. Seasonal stipulations that would restrict development activities to periods when the soils are sufficiently dry or frozen and snow covered will reduce the detrimental effects of soil compaction.

Under this alternative, the BLM would try to prevent, rather than mitigate the degradation of water quality. By reviewing activities before they happen, and following applicable laws and regulations, the water resources would benefit from the adoption of this alternative.

Water resources could be impacted by sediment from the development and rehabilitation of roads, pipelines, drilling pads and reserve pits. ORV use could decrease ground cover and infiltration, which in turn increases sediment. Failure of a reserve pit, or a blowout, with a corresponding oil spill would constitute a worst case impact.

Underground mining of coal could disrupt the groundwater required in the area by dewatering

the area down to the depth of mining. At times, the coal seam will be an aquifer. If such an aquifer is disrupted by mining, both the quality and quantity of groundwater supplied to streams will be affected.

Changes in groundwater flow patterns and an altered water table can also result from mining (USDA, FS 1980c). Water quality can be adversely affected by water percolating through mine spoils or mineral surfaces. Impacts could occur during development of a mine site and service roads.

Chemicals used in the mining process could enter the groundwater if they are not properly handled. This is a special concern in the Scratchgravel Hills where cyanide is used to recover gold. The site lies in close proximity to houses that use wells for their water supply.

Impacts to water resources on I allotments would be positive, since these areas would be developed for greater forage production and greater livestock distribution. Allotment management plans that are beneficial to riparian habitat would also benefit the water resource. Increased ground cover would improve general watershed condition in the long term. Overall there will be about a 2,000-acre decrease in unsatisfactory watershed condition.

Short-term impacts (5 to 10 years) on water resources from timber harvesting would be an increase in sediment and possibly an increase in water yield. These impacts would decrease as revegetation occurred. Long-term impacts would occur where roads were left in place after harvesting.

Any exposure of streams to sunlight as a result of clearcutting would mean an increase in the temperature of the water running through the exposed section. The removal of streambank vegetation also increases the chance of overland flow reaching the stream unimpeded. Leaving buffer strips shades the stream and also protects channel banks and streambeds during logging. See Appendix C for best management practices adopted by the BLM.

Transfer of land parcels from one owner to another would also mean a transfer of water rights to the new owner.

Outstanding Natural Area designations along the Rocky Mountain Front, and ACEC designation for the Sleeping Giant area, accompanied by no surface occupancy stipulations to protect natural values, will result in reduced surface disturbance and fewer impacts to soil and water resources. The effects of special designations are essentially identical to the effects of wilderness designation; however, special designations would presumably provide less secure protection because they are administrative, not legislative.

Conclusion

In general, impacts to soil and water resources can be mitigated on a site-specific basis through the application of standard operating procedures and the general best management practices listed in Appendix C.

Road construction and use from oil, gas, and coal developments and timber harvesting probably constitutes the most significant impact of this alternative on soil and water resources. Erosion and the resulting sediment originating from the road network would be the most costly in terms of downstream, offsite costs. Onsite reductions of vegetative productivity would be significant if mitigating measures failed. There will be approximately a 2,000-acre decrease in unsatisfactory watershed conditions from the current situation based on changes in grazing allotment management. This decrease is probably insignificant.

Impacts on Energy and Minerals

This alternative allows occupancy in the RMF on 85,660 acres (72%) of the 118,250 acres administered by the BLM. Leases would be issued with no surface occupancy stipulations on 14,040 acres (12%). In addition, surface occupancy may be prohibited on steep slopes and adjacent to surface water through the application of the standard stipulations contained in the Butte District Oil and Gas EA. A rule of thumb is that oil and gas resources over one-half mile from a drill site probably cannot be drained without directional drilling. Directional drilling in structurally complex areas is unproven and we have assumed it is not feasible in our assessment of environmental impacts. Therefore, if no surface occupancy areas are over one-half mile wide, the area more than one-half mile from an occupancy site is not leased, since the feasibility of developing oil and gas from beneath it is poor. In some cases of extreme topography, this distance is reduced to one-quarter mile. Based on this rule of thumb, leases would be denied in the core of some no surface occupancy areas. This acreage amounts to 18,550 acres (16%).

Because of the high potential for natural gas in the Rocky Mountain Front, designation of the four outstanding natural areas (ONAs), accompanied by no surface occupancy stipulations to protect natural values, may have a serious impact on natural gas exploration and production. **These designations will result in approximately 10,000 acres having additional restrictions on oil and gas exploration and development.** ONA designation is an administrative action and as

such, is more flexible and less permanent than congressional designation as wilderness. Thus, in the event that natural gas potential becomes more important than the protection of various natural values, ONA designation is more easily altered to favor the exploration and production of natural gas. In addition, hardrock mining is not prohibited in ONAs, so there would be little impact on activities associated with it.

If tracts of federal surface are disposed of, potential problems with split estate ownership can be created. While these problems do not affect the availability of the land for mineral exploration, they may make exploration more complicated, more time consuming, and/or more expensive.

If travel restrictions are imposed in the Scratchgravel Hills and Limestone Hills, mining claimants who are planning exploration operations might be required to file a plan of operations under 43 CFR 3809 instead of a notice (which is much less detailed). This is most significant in the Scratchgravel Hills because of their higher mineral potential.

This alternative would have virtually no adverse impacts on the availability of federal coal for exploration and development. Through the application of the coal unsuitability criteria (see Appendix H) approximately **1,780** acres would not be available for the location of surface facilities. This acreage would have an insignificant impact on recovery of the coal resource.

Conclusion

Mitigating measures have been incorporated into the proposed action, which also incorporates measures developed in the Butte District Oil and Gas Environmental Assessment. The production and use of coal, oil, gas, and other minerals is an irreversible commitment of natural resources. To the extent that these resources are developed under this alternative, there will be an irreversible and irretrievable commitment of resources.

The short-term impacts of this alternative are limited. Much of the area is already leased for oil and gas, and coal, oil and gas, and other minerals will generally be available as demand dictates. The long-term impact may be the loss of potential production from areas in the Rocky Mountain Front that have high potential for natural gas. Coal, oil, gas, and locatable minerals would generally continue to be available as demand dictates, except for some areas on the Rocky Mountain Front.

Impacts on Lands

This alternative would result in a more active land tenure adjustment program than at present. Both sales and exchanges would increase in volume. It is unlikely that any acquisitions by purchase would occur due to budgeting constraints.

There are certain generic impacts created by disposal and acquisition actions regardless of the method used to carry out the transaction (see Tables 4-1 and 4-2). The main benefit of exchange is that it tends to balance the impacts of disposal with those of acquisition, and by regulatory requirement, should result in a net increase in the public values. Only the impacts of disposal are associated with sale.

There is no past example of a large scale attempt to dispose of isolated tracts of public land under the fair market value requirements of FLPMA. However, most of the isolated tracts in the disposal zone were left out of past patent applications because of such physical characteristics as steep slopes, rock outcrops, etc., that minimized their value for agricultural use. Now, most of these tracts are too isolated and inaccessable for commercial or residential use. As a result, it is unlikely that more than 50% of the land meeting disposal criteria could actually be sold or exchanged. There is also a high probability that there will be higher demand for disposable tracts located in the retention zones than for tracts in the disposal zones. This is because the tracts in the retention zone tend to be closer to towns and residential areas. Therefore, a large scale, rapid, land tenure adjustment program is unlikely. It is more likely that such a program will be a gradual long-term process.

Disposal of all suitable tracts within the resource area would be unlikely to cause any significant impact to public land resource values or to the local economics. The only potentially significant impacts would be to individual land users or owners of land adjacent to, or surrounding, disposal tracts. Property taxes and payments in lieu of taxes (PILT) would also be affected to some extent.

Emphasis on sale would reduce the potential for future land acquisitions by depleting the stock of land available for future exchanges. This could result in a less desirable final ownership pattern than relying primarily on exchange.

TABLE 4-1
IMPACTS FROM DISPOSAL

Positive	Negative
Potential for placing land in a higher use such as agricultural, commercial, or residential.	Potential loss of resource values, primarily wildlife and recreation.
One time payment to treasury.	Loss of future revenues from land use authorizations.
Decreased management costs for the BLM.	High cost of processing disposal.
Increase in local property tax revenues.	Increase in property taxes for person who purchases public land.
Could relieve current user of user fees.	Loss of future exchange potential as disposable tracts are depleted.
Can be used to solve existing unauthorized uses.	Loss of Payments in Lieu of Taxes
Can provide additional land for residential development in urban areas.	Potential economic strains on person who currently uses land but cannot afford to purchase it.
Opportunity for ranchers to block up their holdings.	Possible additional encumberance and development costs for mining claim holders.
	Loss of future open space and parkland which could be conveyed under the R&PP Act in urban areas such as Helena.
	Potential for lowering property values in a large scale program.

TABLE 4-2
IMPACTS FROM ACQUISITION

Positive	Negative
Improves resource values of existing public land	Can displace existing authorized users if their use conflicts with management plans for the area.
Can provide improved public access to important resource values.	Removes land from the property tax base.
Improves manageability of existing public land by eliminating private inholdings with potential for conflicting uses.	Substantial costs in processing cases.
Creates more manageable land ownership patterns.	
Improved manageability can decrease administrative costs.	

Conclusion

To avoid unnecessary hardships on current land users or surrounding and adjacent land owners, modified competitive bidding procedures or even direct sale (noncompetitive) can be considered over open public competitive sale procedures.

Using exchange as the primary method of disposal, with sales only being used when necessary, will assure an optimum final land ownership pattern.

Sale often offers a simpler, quicker method of disposing of land, but decreases the long-term potential for a desirable land ownership pattern by depleting the stock of land available for future exchanges, while achieving only half of the desired results: the disposal of undesirable tracts.

Although any land tenure adjustment action could technically be reversed, for all practical purposes such actions should be considered as irreversible.

The only remaining potentially significant negative impact would be the possible economic hardships on current users and surrounding and adjacent owners.

Impacts on Recreation Resources

Some disruption of hunting may occur adjacent to areas of oil and gas activities, but in general the hunting opportunity would be protected by the wildlife stipulations.

Other recreation activities such as fishing, hiking, backpacking, picnicking, cross-country skiing, and snowmobiling may be impacted by a disruption of the natural scene. However, due to the type, location, and season of the wildlife stipulations, the impacts will be minimal.

The primary impact of grazing on recreation is in riparian zones. In some cases, grazing reduces the desirability of a site to such an extent that recreationists choose not to participate in an activity. However, in most cases, recreationists and livestock can coexist on the same site if use by either one is not too heavy. Generally, in nonriparian allotments, moderate changes in livestock use do not adversely affect recreation to any great degree.

Forestry activities have a tendency to shift the recreation opportunities in an area from primitive or semiprimitive types to those that occur in roaded natural settings. The greater the amount of forestry activity in an area, the greater the amount of displacement. Hunting pressure generally increases with increased road access, as do driving for pleasure, ORV use, woodgathering, and similar activities. Motorized trail riding and most nonmotorized activities are reduced or completely displaced.

Recreation opportunities would remain secure on land placed in the retention category. Recreation opportunities generally would be eliminated on lands that were disposed of, unless the disposition were to another federal agency, a state agency, or a city or county government. Land placed in the further study category would continue to be available for public recreation unless it was disposed of at a later date.

If mining takes place in the Scratchgravel Hills, nonmotorized forms of recreation such as horseback riding, hiking, picnicking, and other similar activities would be affected more than motorized recreation. Generally, the disruption of the land surface, the equipment and accompanying noise, and other similar facets of mining activity reduces the desirability and the opportunity for recreation. Motorcycle or other motorized use is not affected to the degree that other uses are. At times, ORV use can actually be enhanced by mining activities. For instance, many of the trails which motorcyclists use in the Scratchgravel Hills were originally roads used by miners and prospectors. It is likely that such uses will follow future mining in the area also.

The opportunity to participate in organized motorcycle activities would be eliminated in the Scratchgravel Hills and Limestone Hills under this alternative. This could result in shifting demand to other areas, but because the current demand is small, the overall impact will probably be insignificant. Participation in other types of recreation, particularly nonmotorized types, could increase in the Scratchgravel Hills and Limestone Hills because of the closure.

Opportunities for motorized recreation would be reduced somewhat by travel restrictions in the Limestone Hills and Scratchgravel Hills. If travel restrictions are imposed in other areas, this would reduce motorized recreation opportunities in those areas as well. If vehicle closures are instituted in any areas, motorized recreation opportunities would be eliminated. At the same time nonmotorized recreation opportunities would probably be enhanced in the Limestone Hills and Scratchgravel Hills and any other areas where travel restrictions or closures might be instituted.

Special designations, accompanied by later site-specific management planning, which would define the scope and priorities for management of recreation resources, may result in more visitor services and more resource protection to enhance the existing recreation situation. It is doubtful that any negative effects will result to recreation as a result of special designations.

Conclusion

Impacts on recreation from timber harvesting can be mitigated to some extent by reducing the number of new or upgraded roads, limiting methods of harvest, limiting amount of harvesting in a general area, and other similar techniques. However, timber harvesting generally will create an irreversible commitment of resources regarding recreation use. Most recreation use patterns are changed by timber harvesting and seldom return to the previous situation. Generally, recreation will tend to move further towards the more developed forms of activity and the more primitive forms will be displaced or eliminated.

Limitations on the number and type of motorcycles, the time of year, or the size of the event could help alleviate conflicts between motorcycle race events and other recreational uses.

Overall, with the exception of reduced motorized recreational uses in specific areas, the recreation program will not be significantly altered from the present situation under this alternative.

Impacts on Visual Resources

Impacts to visual resources would continue to be mitigated on a case-by-case basis in accordance with BLM visual resource management policy. Conformance to the different degrees of modification allowed under various management classes would result in essentially no significant impairment of visual resources. The Sleeping Giant ACEC would be elevated to Management Class 2 until completion of a site-specific management plan for the area. This would result in at least a temporary increase in protection for visual resources in this area.

Impacts on Cultural Resources

The impacts of management decisions on cultural resources will be minimal or nonexistent, if all pertinent laws, regulations, and current policies are followed. Continuing impacts to, and loss of, nonsignificant sites not eligible for the National Register of Historic Places will occur. Depending on the scale and timing of land ownership adjustments, impacts can be expected to occur to cultural resources. Residual impacts will occur to National Register eligible sites, even after mitigation measures, if such sites are transferred to nonfederal agencies or individuals unless appropriate covenants are applied. An irreversible and irretrievable commitment of resources will occur if a determination is made that other resource values outweigh the continued management of a cultural resource site (an adverse effect determination). Conversely, cultural resources of national significance can be brought under federal protection through land ownership adjustments, thereby bringing consolidated areas of prehistoric and historic use under cultural resource management.

Impacts on Wilderness Resources

Nondesignation of the three study areas (11,218 acres) along the Rocky Mountain Front would not result in any additional adverse impacts to the wilderness values from oil and gas activity. This is because the preferred recommendation to designate these former WSAs as Outstanding Natural Areas would provide almost equally restrictive short-term protection. Long-term protection would not be as secure since an ONA designation is not as permanent as wilderness designation.

All these areas possess a high potential for oil and gas, and as a result, are entirely leased. These leases, regardless of the alternative, are not subject to nonimpairment stipulations, because the Interim Management Policy and Guidelines no longer apply for these former WSAs. Impacts associated with exploration and development activities would be subject to other resource stipulations, and consequently adverse impacts on wilderness values could be mitigated to some extent. Nondesignation of the two remaining WSAs will make their wildereness values susceptible to both short and long-term degradation from oil and gas exploration and development activities. These areas would no longer be protected by nonimpairment stipulations.

Livestock management would have little impact on the wilderness values within four of the five areas. The ungrazed Yellowstone River Island would be unaffected, while designation of the three Rocky Mountain Front units as Outstanding Natural Areas would prevent significant range impacts from occurring.

Although no new grazing improvements are anticipated for the fifth unit, Black Sage, some natural impairment could occur due to fewer restrictions governing the use of motorized vehicles for grazing management purposes.

Nondesigntion of the five study areas (17,197 acres) would have some long-term, adverse impacts on wilderness values. Black Sage and the Yellowstone River Island would be susceptable to degradation, since these areas would be open to development. Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek however, will be managed as Outstanding Natural Areas, thereby ensuring protection of their outstanding natural values. The diversity of the NWPS would not be enhanced since 2,062 acres of the under-represented Foothills Prairie ecotype would not be added to the system.

Forest management would not adversely affect wilderness values on four of the study areas, since the timber would be withdrawn. Approximately 300 acres of low quality woodland timber within the Black Sage unit would be available for low priority harvest. Small localized sales of forest products would negatively influence the naturalness and solitude of the area.

Four of the study areas would be unaffected by motorcycle use events because they would be closed to such events. Black Sage, however, would be open to these events, and if they were allowed, they would have significant impacts. The noise and surface disturbance associated with this activity would noticeably degrade the area's opportunities for solitude and primitive recreation, as well as its natural values.

The Yellowstone River Island is unaffected by motorized vehicle access since motorized travel within the unit is not feasible. Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek would be closed to the general public, but special allowances would be made for use by ranchers. The limited access would not have significant impacts on the wilderness values. Black Sage, however, would not be closed to the public. As a result, the area would be subject to temporary visual and audible impacts, as well as the more lasting natural disturbances. Due to the area's fragile terrain and lack of physiographic barriers, off-road use is a major potential impact on the wilderness values in Black Sage.

The three units on the Rocky Mountain Front would be essentially closed to utility and transportation corridor selection as a result of Outstanding Natural Area designation. Although Black Sage and the island would be available for corridor review, the likelihood of selection would be remote due to their locations. If such a project was constructed, wilderness values would be forgone.

The effects of designating the Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek areas as Outstanding Natural Areas would be similar to the effects of wilderness designation, in that the protection of natural values would be emphasized. Hardrock mining would be permitted, but is not expected to be significant. Special designations are considered less permanent than wilderness designation; thus, the degree of protection provided to natural values is less than that provided under wilderness designation.

Impacts on Timber Resources

Under this alternative, **9,503** acres of the 58,099 acres of the suitable commercial forestland (CFL) would be set aside from the harvestable base because of multiple use restrictions (see Table 2-7). Of the **9,503** acres of CFL that would be set aside, **8,035** acres would be set aside for wildlife reasons and 1,468 acres would be set aside for recreation reasons.

Of the **48,956** acres in the available base, **37,888** acres would have some silvicultural restrictions based on the TPCC inventory. The remaining **10,708** acres would have no restrictions.

Managing **48,956** acres of commercial forestland in the harvestable base for the production of forest products would result in a potential sustainable allowable cut of approximately **23.95** mmbf/decade.

Under this alternative, 2,650 acres of woodland would be unavailable for the harvest of forest products. Managing the remaining 16,290 acres of woodland would make additional forested acreage available for limited harvest of sawtimber, fuelwood, and minor forest products.

Harvest practices including clearcutting, shelterwood, and selective cutting would influence vegetative cover on approximately **800** acres per year. This would impact wildlife and grazing. The impact would be in the form of increased or decreased forage and cover.

Other significant impacts of forest management are related to access caused by road construction. These impacts may be positive or negative, depending on the need to make specific public land

available for increased public use, and on the need to protect wildlife or other resource values from increased human disturbance.

Forest development practices such as thinning, planting, and the use of herbicides would improve stocking and growth potential of forest stands and decrease pest and disease problems in these stands.

Grazing will influence forest management primarily by endangering the establishment of regeneration. This influence can be partially mitigated through control of season of use and livestock distribution.

Although the Scratchgravel Hills are set aside (1,468 acres) for recreation purposes, the majority of the commercial forestland has relatively low productivity. This amounts to a loss of approximately 50 mbf/yr. from the potential allowable cut.

Loss of timber production in response to wildlife needs involves **8,035** acres of the commercial forest land base. This amounts to an average reduction in yield of **436** mbf/yr.

Acreage set aside for fragile sites and reforestation problems amount to 4,982 acres or 8% of the base productivity.

Impacts on Range Resources

Under this alternative, a short-term reduction of 3,009 AUMs is proposed for nineteen allotments and a short-term increase of 805 AUMs is proposed for seven allotments. These changes would result in a net decrease of 2,204 AUMs or 7% of the current authorized use.

These short-term reductions or increases are needed to achieve the management objectives developed for each allotment in the I category (see Appendix E). Appendix N displays the recommended change in AUMs for each allotment in the I category. This appendix also indicates allotments where management changes other than changing the total number of AUMs are needed to achieve the management objectives.

In the long term, there would be 1,916 AUMs available for livestock use in addition to the 31,501 AUMs of current authorized use. Because the short term proposes a net downward adjustment, this long-term increase actually represents a net upward adjustment of 4,120 AUMs when compared to the short term. This projection of additional livestock forage is dependent upon implementation of grazing systems, installation of range improvements, and performance of land treatments to increase forage production or convert potentially suitable sites to suitable. Table 4-3 summarizes the short and long-term changes proposed in current authorized use. Table 2-5 summarizes the kinds and quantities of improvements and treatments planned under this alternative.

TABLE 4-3

CHANGES IN GRAZING PREFERENCE: ALTERNATIVE A

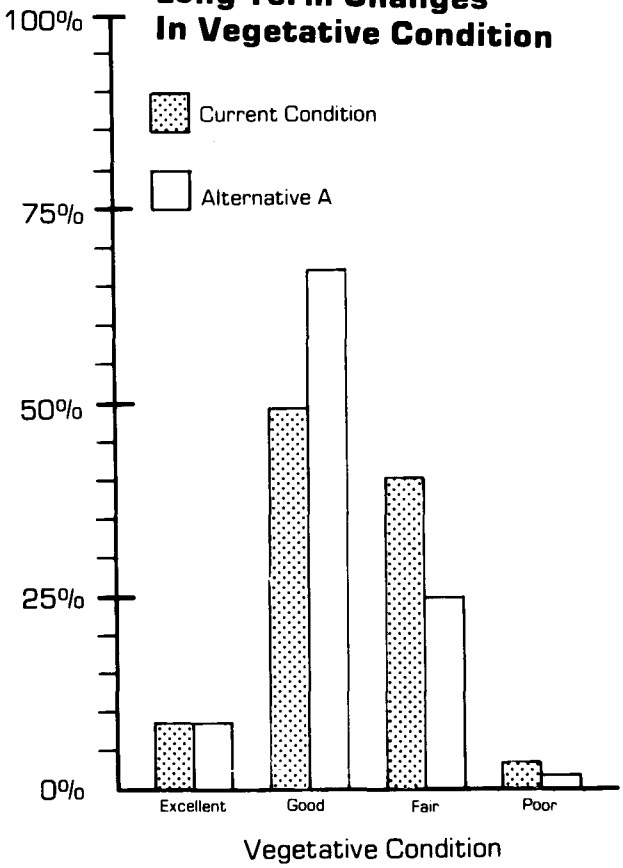
	Total AUMs	Net Change in Use AUMs	Net Change in Use %
Current Authorized Use	31,501	—	—
Short-Term Adjustment	29,297	-2,204	-7.0
Long-Term Adjustment	33,417	+1,916	+6.1

The impacts on each livestock operator would vary according to how grazing use in the allotment fits into the yearlong ranch operation. Seventeen of the nineteen reductions proposed would be more than 15% of current authorized use. These seventeen reductions would normally be phased in over a five year period, thus permitting the operator to locate alternative pasture or to reduce herd size. All seven of the allotments proposed for increases could be subject to the same five year phase-in, depending on the level of monitoring required to establish the final adjustment.

The only significant short-term change in vegetation that would occur under this alternative is a probable increase in the vigor of preferred forage plants where AUM reductions would result in less forage utilization.

Figure 4-1 illustrates the expected changes in vegetative condition in the long term. The major long-term effect on native vegetation will be an improvement in the kinds and amounts of vegetation produced on sites that are now in poor or fair condition. That is, some poor condition sites would be converted to fair condition and some fair condition sites would be converted to good condition. These projections are based on the potential of the vegetative community that presently occupies a site to impove in response to changes in grazing management. The assumption is made that the vegetative condition for sites in Category M and C allotments would not change. The 2,860 acres proposed for reseeding or burning (see Table 2-5) were not included in computing long-term vegetative condition for Alternative A, since they would become unclassified acres once the native vegetation was disturbed.

FIGURE 4-1
Alternative A
Long Term Changes In Vegetative Condition



The range improvements that are summarized in Table 2-5, would be needed to implement management objectives and therefore would have a desirable impact on vegetation. Because many of these improvements would lead to improved distribution of livestock and/or production of better kinds and quantities of livestock forage, they should have a beneficial effect on livestock production.

Control of noxious and poisonous plants, which is proposed for 467 acres, would have a locally beneficial impact on livestock grazing by reducing death and sickness in domestic animals. While some additional livestock forage may be produced as a result of timber harvesting, additional livestock use would be granted on a year to year basis and would not have a long-term impact on the total number of AUMs allocated to livestock.

Seeding and interseeding of native and introduced plants is proposed for 2,560 acres under this alternative. For the most part, the sites proposed to receive this type of treatment have very low natural potential to improve from their present poor or fair condition, because of unfavorable soil or climatic conditions. Three hundred acres are proposed for controlled burns to decrease the amount of sagebrush, juniper, and other woody plants that currently reduce the production of herbaceous vegetation.

Conclusion

The short-term impacts on livestock grazing are mitigated somewhat by the fact that during the 1980, 1981, and 1982 grazing seasons, the BLM has issued annual licenses for nonuse that amount to 1,999 AUMs. These licenses involved nine of the nineteen allotments proposed for downward adjustments under this alternative. The BLM has also issued licenses in each of the last three years for temporary nonrenewable use amounting to an additional 278 AUMs in two of the allotments that are proposed for upward adjustments.

The 1,999 AUMs of nonuse would be part of the short-term downward adjustment proposed in this alternative. Therefore the impacts would be somewhat mitigated since the net reduction from recent actual use would amount to 205 AUMs.

Appendix F describes the kinds of range improvements that are proposed. Careful placement of these improvements and proper design are effective tools in mitigating possible adverse impacts on vegetation and livestock.

The only irreversible commitments proposed that impact the vegetation involve the 2,560 acres proposed for reseeding. When the native vegetation on these acres is replaced by other plant species, it would be unlikely that a native community would again occupy the site (within 50-75 years or more).

Overall, the quality and quantity of vegetation produced on public land would improve. While a 7.0% downward adjustment in livestock AUMs is proposed for the short term, a long-term upward adjustment of 6.1% in AUMs is expected. Both structural and nonstructural range improvements and treatments are proposed at an estimated cost of $449,331.

Through mitigation, some potentially adverse impacts can be avoided. There would be a monetary loss to livestock operators over the short term where AUM reductions are proposed, but overall, livestock production should improve over the long term.

Impacts on Wildlife and Fisheries

Aquatic Habitat

Aquatic habitat would be fully protected within the areas where oil and gas leases would be subject to no surface occupancy stipulations. Aquatic resources downstream from these areas would similarly be protected. Those portions of the Pine Butte and Antelope Butte swamps that contain federal mineral ownership would be fully protected from potential water contamination.

Aquatic habitat within the areas zoned for seasonal stipulations could be subject to minor water contamination and increased sediment caused by erosion from oil and gas activities. However, this is mostly mitigated through application of standard stipulations.

Both upward and downward adjustments to livestock usage will occur on the I allotments. With these livestock adjustments, seasonal changes, and limited fencing along streams, the overall change in the aquatic habitat will be positive. The satisfactory aquatic habitat will increase to 81.6 miles, while the unsatisfactory condition will decrease to 12.6 miles (see Table 4-4). The M and C allotments will increase slightly and provide more satisfactory aquatic habitat.

Development of management objectives for each allotment and the eventual implementation of these will bring about the necessary changes to improve the aquatic habitat. A reduction in livestock numbers and the implementation of grazing systems are the most important factors in the bringing about the improvement in aquatic habitat. While fencing to totally exclude livestock is considered by many to be the most effective way to improve aquatic habitat, it is the most expensive. The proposed action will use a minimal amount of fencing to achieve satisfactory aquatic habitat. If, in the future, monitoring identifies areas where the management objectives are not being met, then a management decision could be made to fence the aquatic habitat.

Short-term adverse impacts from increased commercial timber harvesting in the resource area would result in increased suspended and bedload sediment yields. This would adversely impact aquatic habitat in those streams affected. Surface runoff is the primary vehicle for the transportation of sediment to streams from adjacent sources. Road construction and other soil disturbances are considered to be the primary sources of sediment. Increased road construction would result in the high priority forest management areas. Portions of the Silver Creek, Prickly Pear, and Little Prickly Pear Creek watersheds would be the most affected. The Prickly Pear creeks are rated substantial fishery resources and Silver Creek is rated a moderate fishery resource (MDFW&P 1980b). Road construction and logging adjacent to streams can have the most adverse impacts on aquatic resources (Meehan et al. 1977). The application of standard operating procedures including proper road design, buffer zones adjacent to streams, and techniques that significantly reduce surface erosion would minimize the adverse impacts. In addition, major forest activity plans will be prepared on the high priority forest management areas, which will apply specific mitigating measures for the protection of the aquatic resource. Approximately **13%** of the commercial timber base has been set aside for wildlife protection purposes. A portion of this set aside area includes adequate buffer zones on all perennial tributaries in the resource area. The setting aside of the Scratchgravel Hills from the commercial timber base will have neither beneficial nor adverse impacts on aquatic habitat. **However, the setting aside of the Elkhorn area will result in beneficial impacts to aquatic habitat along the Upper Prickly Pear Creek, primarily because of the reduction in road construction and other soil disturbing activities in this area.**

Some isolated tracts with small reaches of aquatic habitat would be subject to disposal from public ownership. About 1.3 miles are in the disposal area, and 2.4 miles are in the further study category. All other aquatic habitat in the resource area would be zoned for retention.

Overall, the impact would be minimal. Public fishing access that is currently available would be maintained, and opportunities for monitoring or managing aquatic habitat would remain. Future acquisition to benefit habitat management and fishing access would be possible. No public land along major rivers is under consideration for disposal.

Riparian Habitat

The adverse impacts of livestock grazing upon riparian habitat has recently been acknowledged in various symposia (Cope 1979, USDA, FS 1978b, USDA, FS 1977b, Peek and Dalke 1982). However, more research is needed to determine what livestock management strategies are the most appropriate to maintain or improve riparian habitat (Platts 1978).

Experience with three AMPs and several non-AMP allotments in the resource area indicates that riparian management goals can be compatible with livestock grazing when grazing systems are designed to meet riparian needs. Similar findings have been reported by the BLM (USDI, BLM 1980) and Myers (1981). The techniques that can

TABLE 4-4

LONG-TERM WILDLIFE HABITAT CHANGES RESULTING FROM GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT: ALTERNATIVE A[1]

Type of Habitat	Current Condition Acres	Current Condition %	Alt. A Acres	Alt. A %
Elk-wt/sp				
Satisfactory	51,759	77	60,267	90
Unsatisfactory	14,926	23	6,418	10
Elk-su/fa				
Satisfactory	19,896	77	22,561	88
Unsatisfactory	5,922	23	3,257	12
Elk-yearlong				
Satisfactory	6,678	75	7,685	87
Unsatisfactory	2,142	25	1,135	13
Mule deer-wt/sp				
Satisfactory	82,147	75	95,035	86
Unsatisfactory	27,763	25	14,875	14
Mule deer-su/fa				
Satisfactory	9,135	90	9,541	94
Unsatisfactory	1,015	10	609	6
Mule deer-yearlong				
Satisfactory	38,009	78	43,191	89
Unsatisfactory	10,521	22	5,339	11
Bighorn sheep-wt/sp				
Satisfactory	5,095	83	5,174	85
Unsatisfactory	1,035	17	920	15
Bighorn sheep-su/fa				
Satisfactory	9,317	92	9,494	94
Unsatisfactory	783	8	606	6
Bighorn sheep-yearlong[2]				
Satisfactory	12,160	100	12,160	100
Unsatisfactory	0	0	0	0
Moose-wt/sp				
Satisfactory	5,832	60	6,480	66
Unsatisfactory	3,888	40	3,240	34
Moose-su/fa				
Satisfactory	5,012	88	5,138	89
Unsatisfactory	748	12	622	11
Antelope-wt/sp				
Satisfactory	10,452	78	11,221	83
Unsatisfactory	3,072	22	2,303	17
Antelope-su/fa				
Satisfactory	10,921	77	11,541	81
Unsatisfactory	3,259	23	2,639	19
Antelope-yearlong				
Satisfactory	15,618	79	16,882	85
Unsatisfactory	4,212	21	2,948	15
Waterfowl-sp/su/fa				
Satisfactory	1,975	79	2,375	95
Unsatisfactory	525	21	125	5
Grizzly-yearlong				
Satisfactory	12,882	60	19,357	90
Unsatisfactory	8,588	40	2,113	10
	Miles	%	Miles	%
Fisheries-				
Satisfactory	58.1	62	81.6	87
Unsatisfactory	36.1	38	12.6	13
Long-term riparian habitat cond. on I Allot.[3]				
Satisfactory	35.75	51	**61.75**	**89**
Unsatisfactory	33.95	49	**7.95**	**11**
Long-term riparian habitat cond. on M&C Allot.[3]				
Satisfactory	67.45	93	68.55	95
Unsatisfactory	4.75	7	3.65	5

[1]All terrrestrial wildlife species information is shown in acres and percentages.

[2]This yearlong habitat is in the Devils Kitchen and portions of the Sleeping Giant areas that are predominantly inaccessible to domestic livestock.

[3]Condition of riparian habitat in 20 years with the highest ranking I allotments fully implemented.

be used to lessen the impacts of livestock grazing are discussed in the Management Guidance Common to all Alternatives section.

The seventy-seven allotments classified as I category have been ranked for implementation based on current range management policy (Appendix E). This was done by multidisciplinary review in order to emphasize those allotments where common resource problems exist for range, wildlife, and watershed activities, and where future investments would be most cost-effective. Through this review, twenty allotments were identified as highest (A) priority, thirty-nine were identified as moderate (B) priority, and thirteen were identified as low (C) priority. Five other allotments were identified for possible reclassification to either the maintenance or custodial management categories. It is realistic to assume that two AMPs per year for the next twenty years can be implemented. This means that forty AMPs, or all of the A priority and the first twenty B priority I allotments, will be implemented in the next twenty years.

Of the forty highest ranking I allotments, twenty-two contain approximately 30.0 miles, or 78%, of the total unsatisfactory riparian habitat in the resource area. The thirty-seven lower ranking I allotments contain approximately 3.95 miles, or 10% of the total unsatisfactory riparian habitat. The remaining 4.75 miles, or 12%, of unsatisfactory riparian habitat are in the maintenance and custodial category allotments. No change in management is expected for the M and C allotments with unsatisfactory riparian habitat.

Under alternative A, the preferred action, riparian habitat quality would improve from 51% satisfactory to **89%** satisfactory for all I allotments over the long term (see Table 4-4). This represents an increase from 35.75 miles to **61.75** miles of satisfactory riparian habitat. The 4.75 miles of unsatisfactory riparian habitat in the M and C allotments are not expected to improve **significantly** over the long term (Figure 4-2).

The improvement in riparian condition for the I allotments will be the result of such things as reduced stocking rates (1,178 AUMs on nineteen allotments with unsatisfactory riparian habitat), livestock grazing systems designed with riparian habitat improvement objectives, season-of-use changes, class-of-stock changes, and in some instances, fencing to exclude livestock grazing.

Short-term adverse impacts on riparian habitat would result from increased timber harvesting in the resource area. Road construction through riparian zones would be the primary source of disturbance. Application of standard operating procedures, including major forest activity planning, would minimize the adverse impacts.

Setting the Scratchgravel Hills aside from the timber program will have neither beneficial nor adverse impacts on riparian habitat. However, riparian habitat will be additionally protected through the setting aside of approximately **13%** of the commercial timber base in other areas for wildlife habitat protection purposes.

The application of standard stipulations and standard operating procedures on oil and gas leases would protect riparian habitat under this alternative.

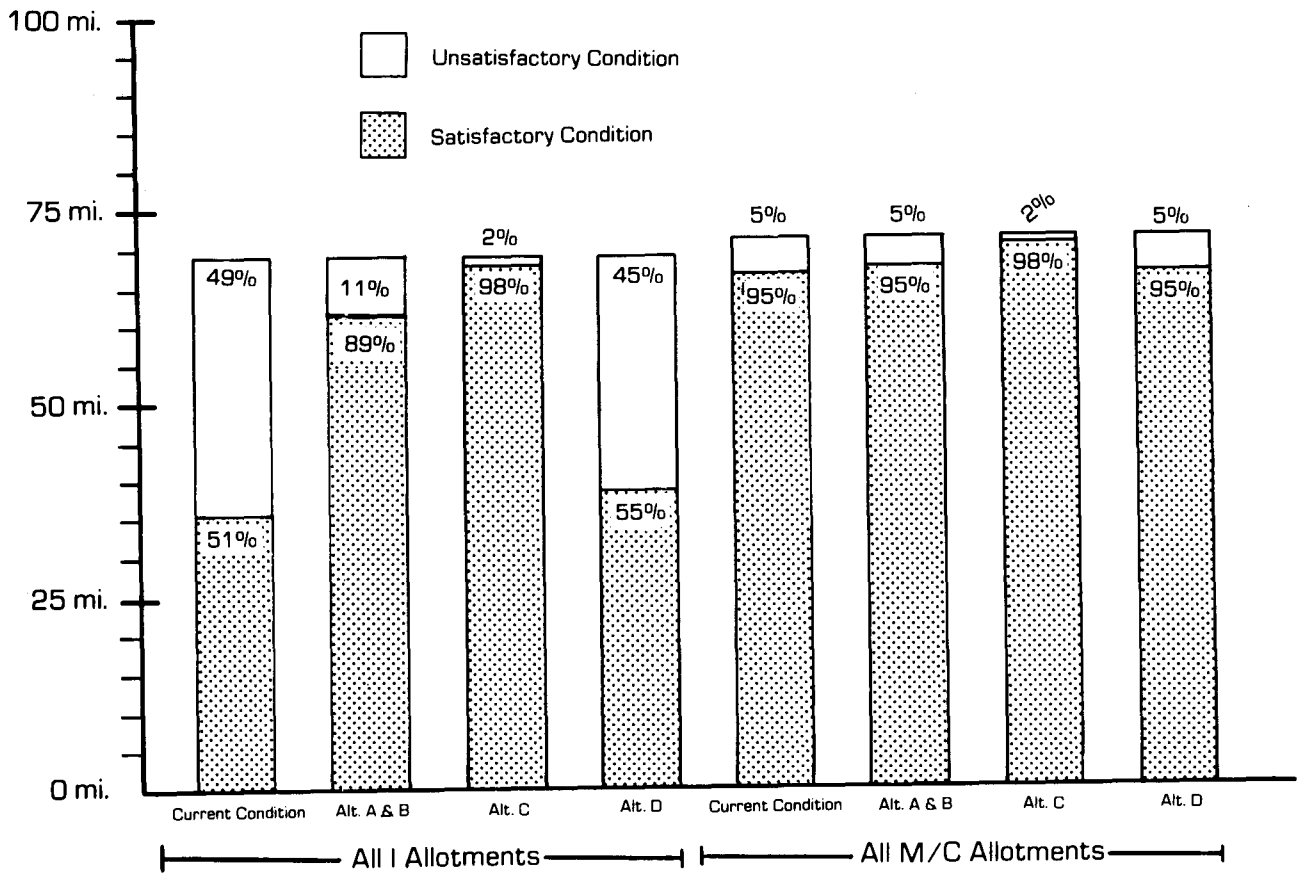
Not recommending the Yellowstone River Island as suitable for wilderness designation would have minimally adverse consequences. The Yellowstone River is a Class I, highest value fishery, at this location. Any potential modification of river banks or riverside vegetation would be adverse to this fishery. However, this island intrinsically contains protection from most land use activities, thus wilderness designation would add only minimal additional protection.

Riparian values will also be included in the decision to dispose of any particular tract of land. While these values will not necessarily limit the disposal of a tract, they will be one factor that is considered in determining whether the tract has sufficient public values to justify retention.

Terrestrial Wildlife Habitat

The Ear Mountain bighorn sheep, mule deer, and mountain goat winter/spring ranges would be fully protected from oil and gas exploration and development activities because of the areas zoned for no surface occupancy. Similarly, all federal minerals in the Ear Mountain Wildlife Management Area would be zoned for no surface occupancy. This wildlife management area is managed by the Montana Department of Fish, Wildlife, and Parks for big game and grizzly bear habitat. Approximately 80-100 bighorn sheep, 400-500 mule deer, and 10-20 mountain goats use this area throughout the year, and there is also a high density of grizzly bear usage in the area. Portions of the mule deer and elk winter/spring ranges in the Blackleaf Wildlife Management Area would be fully protected because of the no surface occupancy zone. This no surface occupancy zone will also protect a portion of the Blackleaf-Teton mule deer winter/spring

FIGURE 4-2
Riparian Habitat Condition



range, which contains approximately 400-500 animals (Kasworm 1981). The remaining big game winter/spring ranges along the front will be protected through no surface occupancy and seasonal stipulations. These seasonal stipulations would minimize disturbance from exploration and development activities during the winter/spring months (typically from December through April). However, the potential exists for increased habitat loss through construction, development of ancillary facilities, and increased human access on the seasonal ranges not zoned for no surface occupancy.

The impacts of harvesting an average of **800** acres of commercial timber annually would vary depending on the harvest method, season, duration of activity, and location of the cutting unit.

Potential adverse impacts include such things as: reduced fall hiding cover for big game, loss of habitat effectiveness due to increased vehicular access, loss of hiding cover immediately adjacent to primary winter foraging areas for big game, reduced big game use of clearcut areas, reduced big game use of moist-sites (i.e. wet sedge meadows, riparian zones, etc.) by a reduction in the adjacent coniferous forest, loss of habitat types for wildlife species that require specific types (i.e. over mature, old growth stands), and disturbance of wildlife during seasonally important time periods (i.e. calving, nursery, and winter habitat).

Application of the Montana Cooperative Elk-Logging Study Guidelines (see Management Guidance Common to all Alternatives) and standard operating procedures would significantly lessen adverse impacts. **The setting aside of approximately 13% of the commercial timber base for wildlife habitat protection further minimizes these potential impacts, particularly in the Elkhorn area.** Potential adverse impacts are more likely to occur in the high priority forest management areas than low priority areas,

because of the intensity of harvest activities (i.e. roads, cutting units, etc.).

The Roger's Pass high priority area contains summer and fall grizzly bear habitat. Intense harvest activities could result in significant adverse impacts. The application of special mitigative measures for grizzly bear management that would be developed in response to specific proposals would reduce, but not eliminate, these impacts.

The Elkhorn set aside area contains key seasonal habitat for a variety of big game including deer, elk, and moose. Since future harvest in this area will be permitted only for the improvement of wildlife habitat, the impacts on wildlife would be beneficial. The identification of this unit as a set aside area and its removal from the regulated timber base is consistent with and complementary to the management direction for the adjacent Elkhorn Wildlife Management Area on the Helena and Deerlodge National Forests.

Setting aside the timber in the Scratchgravel Hills would have minor beneficial impacts to terrestrial wildlife habitat.

Restrictions on motorized vehicle access under this alternative would provide additional protection of seasonal wildlife habitats for the Scratchgravel Hills and Limestone Hills. Site-specific guidance would aid in the protection of seasonal wildlife habitats. In general, the impacts to wildlife from utility and transportation corridors would be minor, since most impacts to wildlife from powerline construction can be effectively mitigated. Collisions of migrating birds with towers or wires is an impact that sometimes cannot be effectively mitigated regardless of their location or placement.

Avoidance areas along major rivers would help protect bald eagle and waterfowl habitat. Avoidance areas in the Limestone Hills and Sleeping Giant areas would help protect and maintain big game habitats. Bald eagle and waterfowl habitat could be impacted in the three window areas.

Under this alternative, all of the waterfowl, bighorn sheep, mountain goat, and moose habitat would be in the retention zone, so there would be no impacts. Most of the elk and antelope habitat would also be in the retention zone. Isolated tracts in the disposal zone in Park, Meagher, Cascade, and Lewis and Clark counties may have limited upland game bird populations. In addition, about 3,600 acres of mule deer habitat in the resource area would be in the disposal zone. Because of the small amount of habitat involved, disposal of these tracts would have only minor impacts on mule deer and upland game birds.

Under this alternative, terrestrial wildlife habitat would be subject to the impacts of mineral exploration and development. The impacts to terrestrial wildlife habitat would depend on the extent and duration of the exploration and development. Seasonally important antelope habitat could be adversely affected. Other terrestrial habitat, including raptors and other nongame birds, would be similarly affected.

Significant beneficial impacts and no adverse impacts would result to all wildlife species and habitat in areas that are closed to motorcycle race events.

Negligible impacts to wildlife habitat would occur in the Montana City use area. The quality of summer mule deer habitat would be impacted in the Hilger Hills, Spokane Hills, and Marysville areas. Because none of these areas are crucial summer mule deer habitat, the summer impacts would be slight. Motorcycle activities conducted during any other season would cause significant disturbance impacts to mule deer, especially in the Spokane Hills and Marysville areas.

If motorcycle usage occurs only in the summer, there will be minor disturbance of elk, primarily in the Marysville area. There would be large impacts on habitat considered suitable for introduction or range expansion of wild turkeys (Merriam's turkey), particularly in the Hilger Hills and Spokane Hills.

Depending on the magnitude of motorcycle use, some habitat (vegetation) loss would occur from motorcycle usage in each area.

The effects on wildlife of leasing and mining coal will vary between species. Physical loss of habitats and disturbance resulting from increased human activities would be the major impacts. Some physical loss of habitats would be permanent, while some could eventually be restored through rehabilitation techniques.

Adequate baseline wildlife inventory data are lacking for this coal field. However, nesting sites and yearlong hunting areas for raptors; dancing grounds, brooding areas, and wintering areas for sharp-tailed grouse; pheasant habitat; yearlong antelope habitat; and winter ranges for antelope, mule deer, white-tailed deer, and elk would be the primary wildlife values impacted by coal development. Application of the unsuitability criteria to available inventory data resulted in the classification of 7% of the federal acres as requiring a no surface occupancy stipulation. This would help insure adequate protection of sharp-tailed grouse dancing grounds and antelope, mule deer, white-tailed deer, and elk crucial winter ranges. **Addi-**

tional sensitive wildlife use areas may be identified, and appropriate stipulations will be attached, prior to lease issuance.

The most significant effect of special designations on fish and wildlife habitat would be in the Rocky Mountain Front area, where approximately 10,000 additional acres would be made unavailable for surface occupancy. This would benefit all types of habitat, but especially grizzly bear, gray wolf, and big game habitat, which would be afforded total protection from onsite disturbance.

Grizzly Bear. Federal minerals in the proposed outstanding natural areas and the Antelope Butte Swamp, Ear Mountain-Pine Butte Swamp, and Beaver Meadows areas would be zoned for no surface occupancy. This would fully protect these three key seasonal habitats. Grizzly bear habitat on adjacent nonfederal land would continue to be subject to oil and gas exploration and development activities, increasing the need for protection of such habitat on federal land.

Zoning those areas listed above for no surface occupancy precludes the possibility of exploration and development activities taking place simultaneously in more than one of these areas. If that were to occur, it would likely jeopardize the RMF grizzly population (USDI, FWS 1980b). All remaining occupied grizzly bear habitat would be zoned for seasonal stipulations. These stipulations would typically preclude exploration and development activities from April through August. The impacts to grizzly bear habitat in these areas primarily would be increased road construction and direct habitat loss from any other construction required.

Important grizzly bear habitat such as aspen and other riparian communities on the Rocky Mountain Front would significantly benefit under this alternative. Management objectives for all livestock grazing allotments that contain grizzly bear habitat would be to improve or maintain key grizzly bear habitat. All allotments, except one, with key seasonal habitat are I allotments and as such will be first priority for AMP development. The following improvements or management opportunities will be employed in developing or modifying livestock grazing plans in allotments 6303, 6307, and 7613:

- defer turn-out until July 1 annually,
- rest or defer grazing until at least August 15 on at least 50% of the total grizzly bear habitat within an allotment,
- do not salt or build additional water developments within one-fourth mile of any identified riparian community types,
- consider fencing large riparian community types as an alternative to grazing system implementation, and
- graze aspen/riparian habitats for not more than one hot season (generally 7/1—9/1) out of every three years.

Season-long domestic livestock grazing has been shown to be detrimental to riparian community condition (Cooper 1977 and Cope 1979). Grizzly bear usage and diet dependency on moist sites has been documented by Schallenberger and Jonkel (1980) and Aune and Stivers (MDFW&P 1981).

Approximately 1,824 acres of seasonally important grizzly bear habitat would remain unleased to livestock grazing under this alternative.

Grizzly bear habitat would improve from the current 40% unsatisfactory to approximately 10% unsatisfactory (see Table 4-4) mainly from incorporating management objectives for grizzly bear habitat into livestock grazing plans and by instituting a moderate reduction in AUMs.

Gray Wolf. The no surface occupancy zones delineated for grizzly bear habitat and ONAs also contain crucial big game winter/spring ranges. These big game winter/spring ranges would be fully protected, which would significantly benefit wolf recovery habitat by protecting the prey base. All remaining seasonal big game ranges on the Rocky Mountain Front would be zoned for seasonal stipulations. These stipulations would minimize disturbance from exploration and development activities during the winter/spring months (typically from December through April). The main impacts to big game habitat in these areas would be increased road construction and direct habitat loss from any other construction required.

The majority of the big game seasonal habitat on public land in the Rocky Mountain Front, with the exception of bighorn sheep winter/spring habitat, is currently in satisfactory condition. A general improvement in forage availability and habitat conditions on bighorn sheep habitat would be expected through the proposed grazing systems and AUM reductions. All other big game seasonal range would be maintained or slightly improved. These factors would benefit wolf recovery habitat.

Peregrine Falcon and Bald Eagle. The application of special and standard stipulations and standard operating procedures will fully protect peregrine falcon and bald eagle habitat from impacts caused by oil and gas exploration and development.

Under this alternative, the Yellowstone River Island would not be recommended as suitable for wilderness designation. Any potential modification or loss of the mature cottonwoods on the island would be adverse to bald eagle and peregrine falcon seasonal usage. No nesting by these species is known to occur, however, rather concentrated winter usage by bald eagles can occur. The habitat for peregrine falcon and bald eagles on the RMF would be protected even without wilderness designation because of the ONA designations in those areas.

Under this alternative, tracts of public land known to be inhabited by threatened, endangered, or sensitive species, or listed by the FWS as critical habitat, would be retained. All known peregrine falcon nesting sites would also be retained. Areas outside of the retention zones that meet the criteria for future peregrine release sites would be evaluated on an individual basis. Most nesting areas for the bald eagle are along rivers, and as such, they have been identified for retention.

Mule Deer. Mule deer are the most numerous and widespread big game species in the resource area. Winter/spring habitat is much more abundant than any other seasonal type. Winter/spring habitat is currently 25% unsatisfactory. Under this alternative, unsatisfactory habitat would improve to 13.5% unsatisfactory (see Table 4-4).

This will primarily be a result of mule deer management objectives being incorporated into livestock management plans. Priority areas include northern Jefferson and Broadwater counties where a preponderance of bitterbrush subtype occurs. Livestock grazing management objectives for bitterbrush winter ranges will include, for example, limiting livestock utilization levels of bitterbrush, deferring livestock grazing on at least 50% of a winter range until after August 15, and on some allotments a reduction in livestock AUMs. Mule deer spring range conditions would improve somewhat through livestock grazing management and an overall 7% decrease in livestock AUMs. Improvement would be reflected in an increased abundance of early growing grasses and forbs that are critically important to deer during April and May.

Summer/fall habitat would improve moderately under this alternative from 10% unsatisfactory to 6% unsatisfactory (see Table 4-4). Riparian zones and moist north slopes would be the summer/fall habitat components most improved through the implementation of grazing systems. Of the 48,350 acres of yearlong mule deer habitat, approximately 22% is currently in unsatisfactory condition. This would significantly improve to 11% unsatisfactory under this alternative due to grazing system implementation (see Table 4-4), browse management objectives, and a decrease in livestock AUMs.

The extent of current losses of mule deer from fence entanglement are not completely known. The construction of 62.2 miles of additional fence would increase entanglement hazards, however, standard operating procedures (i.e. fence design, wire spacings, fence type, etc.) would largely mitigate this.

The Black Sage WSA contains mule deer winter/spring range identified as crucial by established resource area criteria. Approximately 300-400 mule deer migrate from Devils Fence and the Elkhorn Mountains to winter in this unit. This unit would not be given the total protection that wilderness designation would afford, and minor adverse impacts on mule deer habitat could result from future development activity. Mule deer habitat on the RMF would not receive protection through wilderness designation, but would be adequately protected by the designation of the three areas under study as ONAs.

Bighorn Sheep. Under this alternative, bighorn sheep winter/spring habitat conditions would marginally benefit. Condition ratings for crucial seasonal habitat would improve slightly from 17% unsatisfactory to 15% unsatisfactory (see Table 4-4). Some improvement in habitat conditions

would result through a reduction of 100 AUMs and implementation of livestock grazing systems. However, unsatisfactory habitat conditions would prevail on one winter/spring range on the Rocky Mountain Front.

Bighorn sheep summer/fall habitat is largely in satisfactory condition. Adequate areas remain ungrazed by livestock in the majority of the summer/fall use areas because topography is steep and water is limited. Habitat condition ratings would improve from the current 8% unsatisfactory to 6% unsatisfactory (see Table 4-4). Yearlong habitat occurs principally in the Sleeping Giant and Devils Kitchen areas, and is characterized by extremely steep, rocky terrain. The majority of it is unleased to livestock grazing. Condition ratings are all satisfactory and will not change under any alternative. Due to limited conflicts with domestic livestock and abundant forage, these areas could easily support two to three times their present number of sheep.

Elk. Of the approximately 101,300 acres of elk habitat in the resource area, 66% is winter/spring habitat. Winter/spring habitat would improve from 23% unsatisfactory to 10% unsatisfactory under this alternative (see Table 4-4). This improvement would mostly be a result of elk management objectives being incorporated into livestock management plans and an overall 7% decrease in livestock AUMs. Improvement would be reflected by an increase in vigor, composition, and availability of bunchgrasses on winter/spring use areas. The dietary overlap between elk and cattle is significant on winter/spring ranges (Gordon 1968). This can lead to direct forage competition and reduced forage availability. A common problem in the resource area is livestock utilization levels of more than 50% on elk winter/spring ranges. The improvement in condition of winter/spring ranges will mostly be accomplished by implementing livestock utilization objectives, changing livestock distribution patterns, and making a direct forage allocation to elk on some allotments.

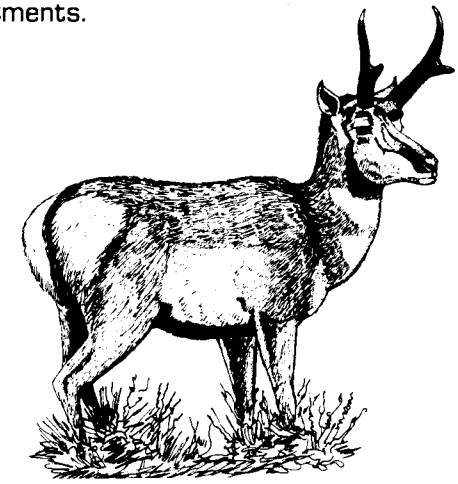
Elk calving occurs to some extent on all spring ranges. Two allotments containing calving habitat would be subject to sagebrush burning projects totaling approximately 300 acres. Calving habitat will be adversely affected on these allotments, although mitigative measures attached to the burning projects will lessen these impacts.

Elk summer/fall habitat would improve significantly from 23% unsatisfactory to approximately 12% unsatisfactory (see Table 4-4) through this alternative. The majority of this improvement would be the result of improved riparian zones and mesic habitats.

All of the 25,500 acres of summer/fall habitat in the resource area are within livestock grazing allotments identified for future AMP development. The majority of these are in the Bull-Dry Mountain, Elkhorn, and Marysville areas. Livestock grazing systems will benefit elk summer/fall habitat through deferment and rest of mesic areas. However, a social intolerance of cattle will continue to prevent elk from making substantial use of some mesic areas at the same time livestock are using the pasture. Substantial elk summer use can be accommodated only by providing extensive mesic habitats essentially free of livestock use each year.

Elk yearlong habitat would improve to 13% unsatisfactory from the present 25% unsatisfactory (see Table 4-4).

Pronghorn Antelope. Under this alternative, antelope winter/spring habitat would improve somewhat from that current 22% unsatisfactory to 17% unsatisfactory (see Table 4-4). The cover and forage afforded by species such as big sagebrush is a limiting factor in the Winston Flats, Black Sage, Boulder River, and Whitetail Creek areas, and no big sagebrush treatments are proposed under this alternative in those areas. The herbaceous component of winter/spring habitat would similarly benefit by the proposed grazing systems with incorporated rest and deferment treatments.



Summer/fall habitat would improve over the long term from the current 23% unsatisfactory to 10% unsatisfactory (see Table 4-4). Habitat identified as yearlong usage would improve from the current 21% unsatisfactory to 15% unsatisfactory (see Table 4-4).

The construction of 62.2 miles of new fence necessary to implement grazing systems would not result in barriers to antelope movement due to standard operating procedures. Alteration of the existing thirteen miles of barrier fence will improve antelope movements.

Antelope habitat in the Black Sage WSA would be only minimally affected. This unit does contain some high quality antelope spring, summer, and fall habitat and some stands of big sagebrush in an area that is rapidly losing big sagebrush stands to cereal grain cultivation. However, the impact of most land use activities in this area can be mitigated through standard operating procedures.

Moose. Riparian habitat quality strongly reflects moose habitat quality especially during the winter, and the extensive riparian surveys were used to evaluate moose habitat (see also the riparian habitat discussion in this chapter).

The summer/fall moose habitat is mostly mixed spruce-fir and mesic habitats in satisfactory condition. However, the majority of the moose habitat in the resource area is winter/spring habitat, and this alternative would have little overall beneficial impact on the quality of moose winter/spring habitat. Moose habitat quality would increase only from 40% unsatisfactory to 34% unsatisfactory (see Table 4-4). Four allotments out of twelve that contain substantial moose habitat would improve in condition, while the remaining eight would show little change in riparian habitat quality. Improved browse availability and plant vigor would occur on 4.2 miles of riparian habitat on four allotments because they are high priority I allotments, stocking rates are being reduced, and riparian habitat objectives are being incorporated into the allotment objectives. Moose winter/spring habitat quality on 15.4 miles of riparian habitat would show very little change in condition. Almost 50% of this habitat occurs on two allotments where livestock grazing management is not considered to be consistent with riparian habitat management.

Waterfowl. Under this alternative, the current 21% unsatisfactory habitat would significantly improve to 5% unsatisfactory (see Table 4-4) through improvement projects and livestock grazing systems that include waterfowl habitat objectives. Four allotments with the majority of the waterfowl habitat will be reduced by 247 AUMs and will be designed to provide residual nesting cover. Continuous seasonlong livestock grazing has been shown to reduce the quality of waterfowl nesting and brood-rearing habitat. Gjersing (1975) and Mundinger (1976) found increased waterfowl production when residual herbaceous cover was available for waterfowl the spring following grazing and if grazing was delayed until incubation was completed.

Conclusion

Mitigation measures in the form of management guidelines for oil and gas exploration and development have been developed for grizzly bear, elk, mountain goat, and mule deer through the Rocky Mountain Front Wildlife Monitoring/Evaluation Program.

No further mitigating measures are deemed necessary beyond the Guidance Common to all Alternatives and application of standard operating procedures. There would be some residual conflicts on seasonal wildlife habitat where sagebrush control projects are implemented.

In the short-term, wildlife forage and cover would decrease on sagebrush control projects. This alternative proposes only 300 acres to be treated, thus, the short-term impacts would be minimal. These minimal impacts would be further lessened over the long term as vegetation reestablishes.

Aquatic habitat would improve from 62% satisfactory to 87% satisfactory. Similarly, riparian habitat would improve from 72% satisfactory to **92%** satisfactory (I allotments and M and C allotments combined).

The short-term 7% reduction in livestock AUMs, implementing livestock grazing systems with riparian/aquatic habitat improvement objectives on the forty highest ranking priority I allotments and utilizing standard operating procedures, would all provide beneficial impacts.

Terrestrial habitat would improve to varying degrees depending on the seasonal habitat in question (see Table 4-4).

Threatened or endangered species habitat would improve or be maintained in satisfactory condition through livestock grazing management that incorporates habitat improvement objectives, oil and gas leasing stipulations, special forestry man-

agement considerations, vehicle access restrictions, and habitat improvement projects. Of particular importance is grizzly bear habitat on the Rocky Mountain Front, which would improve from 60% satisfactory to 90% satisfactory over the long term.

Seasonal big game habitat would similarly improve by 10.8% overall. Beneficial impacts would result through a 7% short-term reduction in livestock AUMs, incorporating big game improvement objectives into implemented grazing plans, special stipulations applied to oil and gas exploration and development, habitat improvement project implementation, and standard operating procedures. Big game populations should increase somewhat as a result of improved habitat though numbers are very difficult to estimate.

Impacts on Social and Economic Conditions

All of the public land in the Rocky Mountain Front is currently leased for oil and gas exploration. The potential for gas discoveries in the area is high. In general, the more stipulations required in a lease, the greater the cost of locating a well. However, drilling in the Rocky Mountain Front area is expensive relative to drilling in other areas in any case. Of more concern to oil and gas companies is the area that is leased with no surface occupancy stipulations or where leasing is denied. In this alternative, 11% of the area is leased with no surface occupancy and 10% is a lease denial area. The relationship between the amount of acreage available to explore and the amount of oil or gas forgone is unknown. Appendix O shows the possible economic impacts associated with different levels of development.

This alternative would entail short-term changes in stocking rates for twenty-six of seventy-seven l allotments in the resource area. Of these twenty-six, nineteen would be reduced an average of nearly 40% and seven would be increased.

The effects of these changes are of different magnitudes depending on ranch size and their dependency on BLM grazing permits. Ranch budgets were developed for various ranch sizes and maximum and minimum changes in AUMs were converted to cow numbers based on a seven month grazing season. The affect of changes made under Alternative A are shown in Tables 4-5 and 4-6. These findings may overstate the actual situation for some ranches since many of the AUMs being cut have not been used in recent grazing seasons. In addition, those ranches in the smaller size classes are likely to have other outside income that is not considered in these ranch budgets. Outside income can come from outside employment, other businesses, or from other agricultural endeavors such as growing grain. Other costs of reductions in grazing permits include a reduction in ranch value equivalent to the value of the AUMs lost. While a grazing permit does not officially have a monetary value, studies have shown a value in the neighborhood of $100 per AUM on the value of the base property is appropriate. Private grazing in Montana leases for approximately $9 per AUM. Table 4-7 shows the number of permittees affected by changes under this alternative and the average dependency on BLM by size class. Under this alternative the reductions shown would be short-term impacts, and AUMs would be restored as range conditions improve. Exact changes by ranch size class cannot be shown at present, since the information on long-term range changes was derived from aggregate information of all allotments by range site.

The magnitude of some of the changes in AUMs could affect the economic viability of ranches, particularly in the lower size classes. At present, most agricultural operations are facing high production costs and low prices for their products. In reaction to a further reduction in income, individual ranches may be forced to find outside employment or to cease ranching altogether. This would mean a major change in the lifestyle of these people. Conversely, those allotments receiving increases on their BLM permits may be given enough breathing room to survive the present economic situation without having to further change their lifestyle.

The incomes shown in Tables 4-5 and 4-6 do not take into account family labor costs, depreciation, or interest on land and equipment. Therefore, actual usable income from these operations would be less than that shown in Tables 4-5 and 4-6. Ranch budgets used for this analysis are shown in Appendix P.

Under this alternative no areas would be recommended for wilderness designation. Therefore, there would be no changes in the current social and economic conditions of the area.

This alternative would make available for harvest **2.395** mmbf per year. This figure is based on the initial inventory of the timber resources in the Headwaters Resource Area. Assuming an average of eight jobs per million board feet of timber harvest, **nineteen** jobs would be created at this level of harvest. It should be pointed out that due to lack of inventory, manpower, and market conditions this volume of timber has not been regularly harvested in the past. The present condition of the forest products industry will probably mean that demand will not be sufficient to justify harvest at

TABLE 4-5

CHANGES IN INCOME FROM REDUCTIONS IN STOCKING RATES: ALTERNATIVE A

	Highest Reductions			Lowest Reductions			
Ranch Size (cows)	Change in Stocking Rate (cows)	Income* (dollars)	% Change in Present Income	Change in Stocking Rate (cows)	Income* (dollars)	% Change in Present Income	Present Income (dollars)
0-100	-25	-113.75	-103.2	-0	3,553.00	0	3,553.00
101-250	-26	13,699.75	-24.1	-5	17,206.19	-4.6	18,041.14
251-500	-47	31,207.50	-21.3	-4	38,941.91	-1.8	39,661.39
501-1,000	-36	98,612.69	-5.9	-14	102,386.37	-2.3	104,787.77
More than 1,000	-16	171,573.01	-1.6	-16	171,573.01	-1.6	174,313.01

*These figures are net income over variable costs and do not reflect fixed costs, depreciation and returns on land investment.

TABLE 4-6

CHANGES IN INCOME FROM INCREASES IN STOCKING RATES: ALTERNATIVE A

	Highest Increases			Lowest Increases			
Ranch Size (cows)	Change in Stocking Rate (cows)	Income* (dollars)	% Change in Present Income	Change in Stocking Rate (cows)	Income* (dollars)	% Change in Present Income	Present Income (dollars)
0-100	+44	7,959.60	+12.4	+14	4,955.10	+39.5	3,553.00
101-250	+17	20,707.93	+14.8	+17	20,707.93	+14.8	18,041.14
251-500	+17	42,157.67	+6.3	+8	40,836.11	+3.0	39,661.39
501-1,000	+17	107,334.03	+2.4	+17	107,334.03	+2.4	104,787.77
More than 1,000	+2	174,612.01	+0.17	+2	174,612.01	+0.17	174,313.01

*These figures are net income over variable costs and do not reflect fixed costs, depreciation and returns on land investment.

TABLE 4-7

IMPACTS ON PERMITTEES: ALTERNATIVE A

Size Class	Number of Permittees Receiving Increases	Average Dependence (%)[1]	Number of Permittees Receiving Decreases	Average Dependence (%)[1]
1	2	27.3	2	38.4
2	1	42.5	5	34.3
3	3	27.1	8	20.4
4	0	—	7	16.2
5	1	2.1	1	8.4

[1]Dependency is defined as the percentage of a rancher's total AUMs that is supplied by public land.

this level in the near future. As the economy and the housing markets come out of recession, demand for timber will increase, making it more likely that timber would be harvested at the **2.395** mmbf level in the future.

The social and economic consequences of changes in the land ownership pattern vary with the type of adjustment (sale, exchange, or sale with preference), the length of time over which adjustments are made, and the magnitude of such adjustments. The relative magnitude of these effects are shown in Table 4-8.

Table 4-8 was constructed to show the relative magnitude of impacts given different levels of adjustment and the time frame over which those adjustments would be made. Additional analysis of impacts will be necessary when a specific land adjustment program is developed and specific tracts are identified.

If BLM tracts are sold, they would generally be sold at fair market value. Placing tracts for sale in this manner would put pressure on adjacent landowners to bid for the property in order to maintain their current use of these tracts. However, at present, many farmers and ranchers are not in good financial shape and their ability to borrow, in many cases, is already strained.

Both sale types would reduce the area that the BLM manages, and thereby reduce some of the BLM's management costs in the area.

Land exchanges would tend to block up BLM-administered lands. **Blocking up of lands can lead to significant savings in administrative costs and provide greater flexibility in managing a tract. This is particularly true where large tracts are involved.** The major impact on adjacent landowners would be the possible loss of current use privileges.

TABLE 4-8

SOCIAL AND ECONOMIC EFFECTS OF LAND OWNERSHIP ADJUSTMENTS

		Size and Timing of Adjustment			
Type of Adjustment	**Type of Impact**	**Less than 5,000 acres[1] over less than 5 years**	**Less than 5,000 acres[1] over more than 5 years**	**More than 5,000 acres[1] over less than 5 years**	**More than 5,000 acres[1] over more than 5 years**
Sale	Individual impacts on adjacent owners	High	Moderate	High	Moderate
	Reduction in area requiring BLM management	Low	Low	Moderate	Moderate
Sale with preference	Loss of opportunity to buy property at a lower rate by those that don't have preference	Low	Low	Moderate	Moderate
	Reduced financial impact on preference holder to purchase land	Low	Low	Moderate	Moderate
	Reduction in area requiring BLM management	Low	Low	Moderate	Moderate
Exchange	Possible loss of privileges by current permittees or fees charged for land use	High	Moderate	High	Moderate
	Blocking up of BLM managed land	Low	Low	Moderate	Moderate

[1]Resource areawide

Changes in public ownership of land in a county would affect payments in lieu of taxes paid to the counties, which among other things, are based upon federal acreage in the county.

Under this alternative the possibility of development of a mine in any part of the Scratchgravel Hills would remain. At present, there is some gold mining activity in the hills. This activity has created some conflicts between the mining company and local residents, primarily because of increased truck traffic on area roads. Under this alternative the possibility exists that this type of conflict would increase with increased mining.

The primary demand for a motorcycle race area on BLM-administered land is in the Helena-Townsend area. This alternative would restrict the areas open to consideration. Both the Scratchgravel Hills and the Limestone Hills have had requests for motorcycle races in the past. Local opposition to races in these areas has been quite high. The private land near the Scratchgravel Hills has been subdivided and is becoming suburban in character. Thus, the scheduling of race events in the surrounding hills would cause greater social disruption and opposition than it has in the past.

The situation in the Limestone Hills is slightly different than that in the Scratchgravel Hills. In this area the National Guard has a training area where an extensive investment in facilities has been made. Possible conflicts with this use and local opposition to these events could cause conflicts.

The effect of eliminating the sites mentioned above is that other parts of BLM-administered land in the Helena area are more likely to be considered for motorcycle race events. This would mean that the noise and crowd control problems, as well as the increased local business activity, of such an event may occur in some other part of the Helena-Townsend area.

The social and economic consequences of restrictions on motorized vehicle use can be divided into two groups, those in areas where motor vehicle use now occurs and those areas where it does not occur. In areas where restrictions would be placed on vehicle use that presently occurs, some social and economic impacts would occur. Leasees of the public lands, such as ranchers and mineral interests, may see increased costs during part or all of the year, because of the need for nonmotorized access to the land. Some of this increased cost can be mitigated through scheduling of activities. The character of recreational use would change, adversely impacting those who use motor vehicles while benefitting those who prefer nonmotorized forms of recreation.

In those areas presently not used by motorized vehicles, the future opportunity to open an area to development activities such as timber harvest or to vehicle use would be limited. In order to fully assess the tradeoffs involved in a road closure or travel restriction, a more detailed analysis will be needed on a site-specific basis at the time such restrictions are proposed.

The establishment of avoidance areas and windows could cause a utility or transportation corridor to take a longer route, and thus increase the cost of construction. In addition, the combination of exclusion areas, avoidance areas,and windows could cause corridors to be routed closer to inhabited areas, which could increase the social impacts on local residents. The actual impact of designating exclusion areas, avoidance areas, and windows cannot be assessed further without specific details of a proposed corridor. The social and economic effects of avoidance areas and windows in the Rocky Mountain Front area are probably very small since the topography and the land use patterns do not lend themselves to routing a corridor on BLM-administered land.

Making federal coal available for further leasing consideration would not have an immediate economic impact on the area. Before a leasing decision could be made, further detailed studies of the area would be required. To date, the level of interest in the federal coal in this area has been low. The further study of the federal coal lands in this area will not take place until an application to lease is received. For illustrative purposes, Appendix Q shows possible economic impacts in Cascade County of coal development at a level that could supply Montana Power Company's proposed Salem Project. The other counties assessed in the E/D model for coal development showed either no changes or very minor changes in employment. The basic assumption for this model is the development of three underground mines southeast of Great Falls.

Social impacts that would occur, if coal were developed, would come from an influx of population. The impact of a population influx would be lessened if local labor could be used in the mines. The major impacts of a population increase would be on the supply of housing, the capacity of local schools, and the water and sewage systems of local communities. The proximity of Great Falls to this area would reduce some of these impacts, since there is some available capacity for growth in Great Falls. This analysis could be different if the construction of the Salem plant was taking place at the same time.

At the present time, it is difficult to assess how likely the development of federal coal would be in this area. There are several reasons for the difficulty. The coal has a high BTU content, which is attractive, but also a relatively high sulphur and ash content, which are not desirable for power plants. The coal is in small beds that would require underground mining. This method is more expensive than strip mining. It has not been demonstrated that coal from this area could compete economically with the lower BTU strip-mined coal from eastern Montana.

Under this alternative the areas of Blind Horse Creek, Chute Mountain, Deep Creek/Battle Creek, and Ear Mountain would be proposed for designation as Outstanding Natural Areas. The management of these areas would allow the use of vehicles under very limited circumstances. This type of restriction could increase the cost to the permittee to use the area to move livestock and maintain range improvements. The use of horses would increase the time required for these activities and could require an increase in the labor needed to maintain these areas. Some of these additional costs could be mitigated through careful scheduling of vehicle use and tasks. This would require much more planning on a rancher's part. Resistence to this type of scheduling could be very great.

Another impact of designation of these areas as ONAs would be to oil and gas exploration and development. Much of these areas would either be leased with no surface occupancy or, in the core of each area, leases would be denied. The lease denial area amounts to approximately 18,550 acres, or 16%, of the total public land area along the Rocky Mountain Front. Due to very limited drilling experience near or on the public land in the Rocky Mountain Front, it is not currently possible to estimate the number of barrels of oil or mcf of natural gas lost to the economy due to these restrictions. Even if this alternative were not selected, at least 10,950 acres would be closed to drilling for protection of resource values such as endangered species habitat.

Timber in these areas is classified as woodland. Under this alternative 1,750 acres of woodland would not be available for the harvest of forest products. At present, haul distances to prospective mills would limit harvest of this timber in any case.

Public interest on a national scale for resources on the Rocky Mountain Front is very high. This is primarily due to the high potential for oil and gas in the area, the presence of the threatened grizzly bear, the presence of the largest bighorn sheep herd in the lower forty-eight states, and the proximity to the Bob Marshall Wilderness. Many groups and individuals who are interested in the management of the RMF would regard the Outstanding National Area designation as official recognition of the importance of the RMF.

This alternative also would propose for ACEC designation the Sleeping Giant area, from the Missouri River to Sheep Creek. As an ACEC, management of the area would include restrictions on vehicle use in the area and could mean restrictions on dispersed camping along the Missouri River. Other uses would include wildlife habitat management and livestock grazing. The main objective of management will be to prevent resource damage due to intensive use and protect wildlife from seasonal disturbance in specific parts of the area.

At present, this area is very popular for water based recreation on the Missouri River and Holter Lake. Designation and management of the area as an ACEC could increase the demand on the recreational resource. There are currently several businesses including two marinas, a bar, and a restaurant that would benefit from this increased recreation activity. Depending upon the amount of increased use, new businesses could appear in the area near Holter dam outside the ACEC area to service this increased visitor use.

Changes in current grazing and timber management are not expected over what would occur in the no action alternative.

Conclusion

The effects of designating motorcycle use areas could be mitigated to some extent by having BLM input into the scheduling and policing of events. This would tend to reduce opposition from adjacent landowners, but would by no means completely eliminate opposition.

Closing some areas to ORV use could be mitigated if other areas could be provided for this use. It would not, however, satisfy those who wish unlimited access to the public land. Education of ORV participants would also help reduce conflicts between adjacent landowners and ORV participants.

Many of the economic impacts discussed in the grazing management section would occur over the short term. As grazing conditions improve, some of the AUMs lost initially could be restored for livestock grazing.

Even if the mitigating measures proposed for land adjustments are followed, some adjacent landowners will be impacted. Many adjacent landowners will not be able financially to purchase public land even with extended payment plans.

Therefore they will run the risk of losing their grazing on the public land or would likely face substantially higher fees for that grazing.

The impact of land adjustments would primarily occur in the short term. Over the long run, most adjacent owners could adjust to the changing situation, provided they are able to make it through the short-term impact period.

Overall, Alternative A would lead to short-term income losses of up to $8,400 per year by individual grazing permittees. In the long term, aggregate productivity under this alternative would increase. Those permittees receiving increases would see income additions of up to $4,400 per year.

Timber harvest levels of **2.395** mmbf would provide **19** jobs throughout the resource area if the allowable cut is harvested. This compares to the present situation of 100 mbf and approximately one job.

In the short term, grazing permittees facing reductions would experience a loss in permit value and, for those losing active AUMs, a reduction in income.

Under this alternative, those who currently use motorized vehicles on public land in the resource area may experience a perceived loss of freedom as areas are closed to vehicle use.

ALTERNATIVE B: NO ACTION

See Chapter 4 of the Draft RMP/EIS.

ALTERNATIVE C: PROTECTION

See Chapter 4 of the Draft RMP/EIS.

ALTERNATIVE D: PRODUCTION

See Chapter 4 of the Draft RMP/EIS.

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DOCUMENT PREPARATION

This resource management plan was prepared by an interdisciplinary team of specialists from the Headwaters Resource Area and the Butte District Office. Writing of the RMP began in November 1982; however a complex process that began in 1979 preceded the writing phase. This process included resource inventory, public participation, interagency coordination, and preparation of a management situation analysis (on file in the Headwaters Resource Area Office). Consultation and coordination with agencies, organizations, and individuals occurred in a variety of ways throughout the planning process.

CONSISTENCY

The BLM's planning regulations require that resource management plans be "consistent with officially approved or adopted resource related plans of other federal agencies, state and local governments and Indian tribes, so long as the guidance and resource management plans are also consistent with the purposes, policies and programs of federal law and regulations applicable to public lands . . . ." Several actions were taken to ensure that this consistency requirement was met. A letter was sent to the Governor's Natural Resource Council in December 1981 requesting copies of state plans that the BLM should consider in their planning effort. Meetings were held in September and October 1982 with the County Commissioners for all nine counties in the Headwaters Resource Area, the Governor's Natural Resource Council, and other agencies and groups.

These same agencies and groups received copies of the draft RMP and were asked for their comments.

PUBLIC PARTICIPATION

A preliminary list of issues was sent to about 800 people in April 1979. The purpose of the mailing was to identify the major issues in the resource area, which would then provide guidance for the data collection effort. Following this mailing, a nine member Citizen's Advisory Group was set up to provide additional guidance for issue identification.

A Federal Register notice was published on March 18, 1980 that announced the formal start of the planning process. A letter was sent to range users in June 1980 to announce that a vegetative inventory would be conducted that summer and that the data would be used in the RMP. Four meetings were held in July to explain the inventory process and how it would be used. In September 1980 a second mailing was sent to about 1,000 people asking for their comments on a revised list of issues. The comments received were used to further refine the issues, and in August 1982 a third mailing was sent to about 2,700 people that contained the finalized issues and a list of planning criteria that would be used to resolve the issues.

Other informal coordination with the public took place throughout the planning process by means of personal contacts, phone calls, etc.

AGENCIES AND ORGANIZATIONS CONSULTED

The RMP team consulted with and/or received input from the following organizations during the development of the RMP:

Federal Agencies

Bonneville Power Administration
Census Bureau
U.S. Department of Agriculture
  Forest Service
  Soil Conservation Service
U.S. Department of the Interior
  Bureau of Mines
  Bureau of Reclamation
  Fish and Wildlife Service
  Geological Survey

State Agencies and Organizations

Montana Bureau of Mines and Geology
Montana College of Mineral Science and Technology
Montana Department of Agriculture
Montana Department of Commerce
Montana Department of Fish, Wildlife, and Parks
Montana Department of Labor
Montana Department of Natural Resources and Conservation
Montana Department of Revenue
Montana State Historic Preservation Officer
Montana State University
Office of the Governor
University of Montana

Organizations and Businesses

American Fisheries Society, Montana Chapter
Atlantic Richfield Company
Dawson Community College
Headwaters RC&D
League of Women Voters
Montana Power Company
Montana Public Lands Council
North Dakota State University
Phillips Petroleum
Rocky Mountain Oil and Gas Association
Scratchgravel Hills Homeowners Association
The Wilderness Society
Western Environmental Trade Association
Wildlife Society, Montana Chapter

DISTRIBUTION

Copies of the Draft RMP were sent to the following agencies, businesses, and interest groups for their review and comment:

Federal Agencies

Bonneville Power Administration
Council on Environmental Quality
Department of Agriculture
  Forest Service
  Soil Conservation Service
Department of the Air Force
Department of the Army
  Corps of Engineers
Department of Energy
  Federal Energy Regulatory Commission
Department of the Interior
  Bureau of Indian Affairs
  Bureau of Mines
  Bureau of Reclamation
  Fish and Wildlife Service
  Geological Survey
  National Park Service
Environmental Protection Agency
Farmers Home Administration
Federal Aviation Administration
Federal Highway Administration
National Advisory Council For Historic Preservation

Congressional Offices

Office of Congressman Marlenee
Office of Congressman Williams
Office of Senator Baucus
Office of Senator Melcher

State Agencies

Bureau of Mines and Geology
Department of Commerce
Department of Fish, Wildlife, and Parks
Department of Health and Environmental Sciences
Department of Highways
Department of Military Affairs
Department of Natural Resources and Conservation
Department of State Lands
Environmental Quality Council
Office of the Governor
Oil and Gas Commission
State Clearinghouse
State Historic Preservation Officer
State Library

County Commissioners and Planning Boards

Broadwater County
Cascade County
Gallatin County
Jefferson County
Lewis and Clark County
Meagher County
Park County
Pondera County
Silver Bow County
Teton County

Businesses

Amax Coal Co.
American Petrofina
Anderson Exploration Co.
Atlantic Richfield Co.
Big Sky Land and Leasing Service
Bouma Post Yards
Burlington Northern Inc.
Champlin Petroleum Co.
Chevron Resources Co.
Chevron USA Inc.
Conoco Inc.
Consolidated Georex Geophysics
Consolidation Coal Co.
El Paso Exploration Co.
Elanco Products Co.
Exxon Coal Res. USA Inc.
Kerr McGee Corp.
Louisiana Pacific Corp.
Malon Oil and Gas Co.
Meridian Land & Minerals Co.
Montana Power Co.
Montco
Multitech
Natural Gas Corporation of California
NTEC
Phillips Petroleum Co.
Polar Marine
Shell Oil Co.
Shelton Land and Cattle Co.
Shelton Ranches Inc.
Sohio Petroleum Co.
Texaco Inc.
Wesco Resources Inc.
Westech
Western Energy Co.
Wexpro Co.
Williams Exploration Inc.
Z K Resources Inc.

Organizations

Audubon Society
Boulder River Sportsmen's Club
Continental Divide Trail Society
Defenders of Wildlife
Ducks Unlimited
E. Montana Distance Riders Assn.
Elkhorn Citizens Organization
Fishing and Floating Outfitters Assn. of Montana
Flathead River Basin Study
Inland Forest Resource Council
Int. Snowmobile Ind. Assn.
Laurel Saddle Club
League of Women Voters
Marysville Pioneers
Montana Assn. of Conservation Districts
Montana Assn. of Counties
Montana Assn. of Grazing Districts
Montana Cattlemen's Assn.
Montana Environmental Information Center
Montana 4 x 4 Assn.
Montana Historical Society
Montana Mining Assn.
Montana Oil Journal
Montana Petroleum Assn.
Montana Snowmobile Assn.
Montana Stockgrower's Assn.
Montana Water Development Assn.
Montana Wilderness Assn.
Montana Wildlife Fund
Montana Women in Timber
Montana Woolgrowers Assn.
National Trails Council
Natural Resources Defense Council
Nature Conservancy
Northern Plains Resource Council
Rocky Mountain Front Advisory Council
Rocky Mountain Oil and Gas Assn.
Sierra Club
Skyline Sportsmen
Sun River Teton Resource Forum
Sunny Vista Homeowners Assn.
The Wilderness Society
Trail Riders
West Yellowstone Ski Club
Western Environmental Trade Assn.
Western Forest Industries Assn.
Western Montana Ghost Town Preservation Society
Wildlands Resource Assn.
Wildlife Society

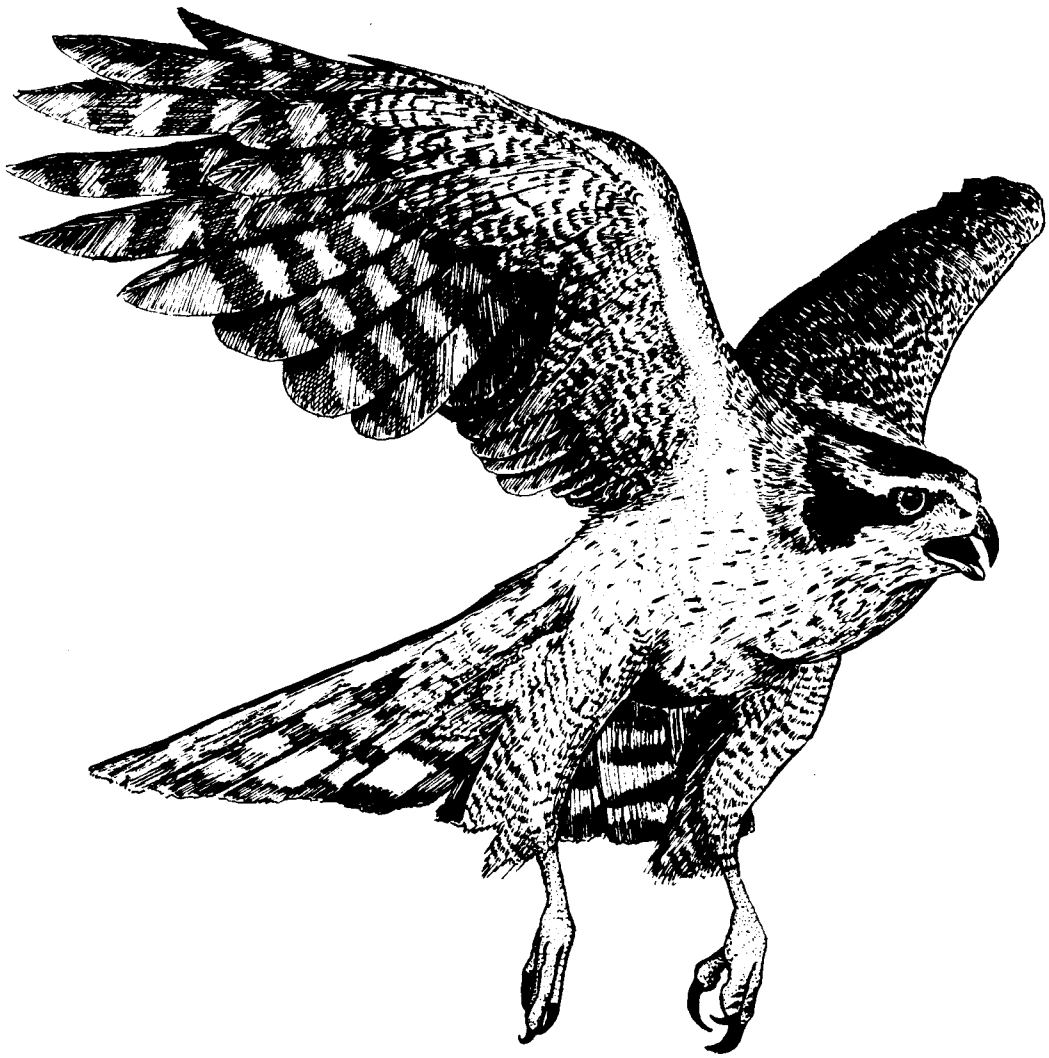
PREPARATION OF THE FINAL RMP/EIS

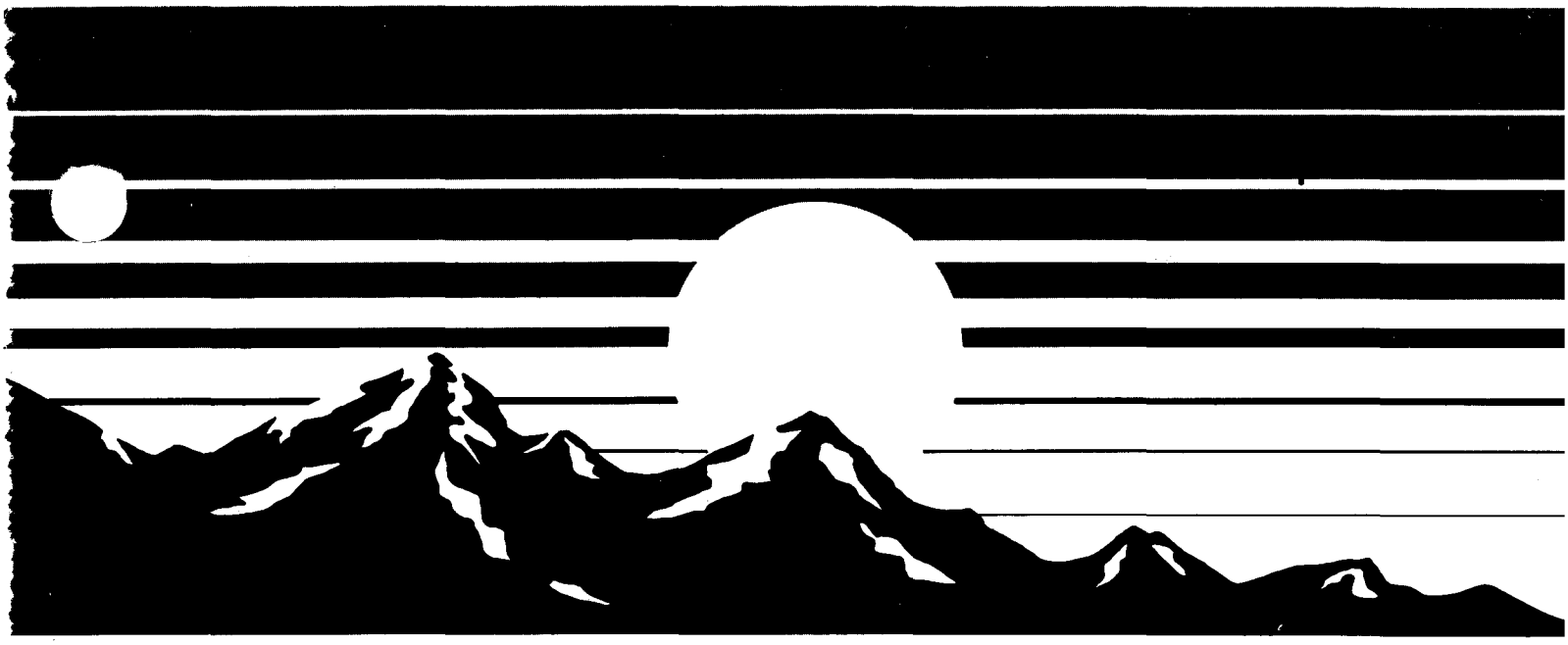
The Draft RMP/EIS was filed with the Environmental Protection Agency on May 6, 1983. The Notice of Availability and Announcement of Public Hearings was published in the Federal Register on May 6, 1983. The notice announced a ninety day public comment period ending August 5, 1983. Over 1,100 copies of the Draft RMP/EIS were mailed to federal, state, and local governments and agencies, elected officials, businesses, organizations, and individuals. News releases contained information on the Draft RMP/EIS and the times and locations of public meetings. Eighty-nine comment letters were received.

Chapter 7 contains comments received and the responses to them. Appendix V contains all letters received in response to the Draft RMP/EIS. Thirty-two of the comments came in on the Headwaters Land Ownership map. It was not possible to reproduce these comments. They are on file in the Headwaters Resource Area Office.

A formal public hearing was held in Helena on June 15, 1983. A court recorder transcribed the hearing verbatim and five people gave testimony. The testimony is on file in the Headwaters Resource Area Office.

A coordination meeting with the Governor's Natural Resource Council was held on September 8, 1983. Previous to the meeting the BLM conducted a tour for the Council members along the Rocky Mountain Front on July 22, 1983.





This final Headwaters Resource Management Plan and Environmental Impact Statement was prepared by an interdisciplinary team. Table 6-1 lists the names and qualifications of each team member.

TABLE 6-1

Headwaters RMP/EIS Team

Name	Position	Qualifications
Dan Lechefsky	Project Manager	B.S., Forest Management, BLM—3 years planning staff specialist, 2-1/2 years outdoor recreation planner
Dave Barney	Access	B.S., Forest Management, BLM—3 years realty specialist (ATROW), 6 years forester
Scott Billing	Fire	B.S., Forest Management, BLM — 5 years district fire management officer, USFS — 6 years fire control technician
Clif Fanning	Soils	B.S., Soil Science, BLM — 6 years soil scientist
Gary Gerth	Range (technical review)	B.S., Range Management, BLM — 2 years Chief of the Division of Planning and Environmental Assistance, 7 years Area Manager, 4 years range conservationist, USFS — 5 years range conservationist.
George Hirschenberger	Range, Vegetation	B.S., Forestry, BLM — 8 years range conservationist, 1 year range technician
Mark Koski	Maps and Graphics	B.S., Geography, BLM — 3 years visual information specialist, 2 years cartographic technician
David Lomas	Hydrology, Air Quality	B.S., Forestry (Hydrology Option), M.S., Watershed Science, BLM — 5 years hydrologist, USGS — 6 months hydrologist

TABLE 6-1

Headwaters RMP/EIS Team

Name	Position	Qualifications
Carole Mackin	Writer/Editor	B.S., Zoology, BLM — 3 years safety specialist, State of Alaska — 1 year soil scientist, Private Industry — 2 years agricultural research biologist
David Nelson	Economics, Social Analysis	B.S., Economics, M.S., Agricultural Economics, BLM — 6 years economist and planning specialist
Brad Rixford	Forestry, Wilderness	B.S., Outdoor Recreation, BLM — 1 year natural resource specialist, 3 years outdoor recreation planner
Bob Rodman	Lands	B.S., Biology, BLM — 4 years realty specialist
MaryAlice Stoner	Recreation, Visual Resources	B.S., Geography, M.S., Park and Recreation Resources, BLM — 5 years outdoor recreation planner, USFS — 5 years wilderness research
John Taylor	Cultural Resources, Paleontology	B.A., Anthropology, M.A., Anthropology, BLM — 7 years archeologist
Bill Torgersen	Forestry	B.S., Forest Resource Management, BLM — 20 years forester
Delores Vavas	Supvr. Clerk/Typist (Word Processor)	BLM — 3 years lead operator
Dick Ward	Technical Coordinator	B.S., Natural Resources, BLM — 1 year writer/editor, 3-1/2 years outdoor recreation planner
Ted Wenzel	Wildlife, Fisheries	B.S., Wildlife & Fisheries Biology, M.S., Ecology, BLM — 4 years wildlife management biologist
David Williams	Energy and Minerals	B.S., Geology, M.S., Geology, BLM — 6 years geologist, Private Industry — 3 years geologist

TABLE 6-2
MONTANA STATE OFFICE SUPPORT TEAM

Name	Title
Robert Allen	Visual Information Specialist
James Chapman	Offset Photographer
Larry Davis	Illustrator
Corla DeBar	Cartographic Technician
Dora Flanagan	Cartographic Technician
Kathy Ives	Printing Technician
Bill Keiffer	Cartographic Technician
Rick Kirkness	Printing Specialist
Larry Pointer	Planning Coordinator
Chuck Sigafoos	Supervisory Cartographic Technician
Phyllis Smith	Editorial Clerk
Brenda Takes Horse	Editorial Clerk

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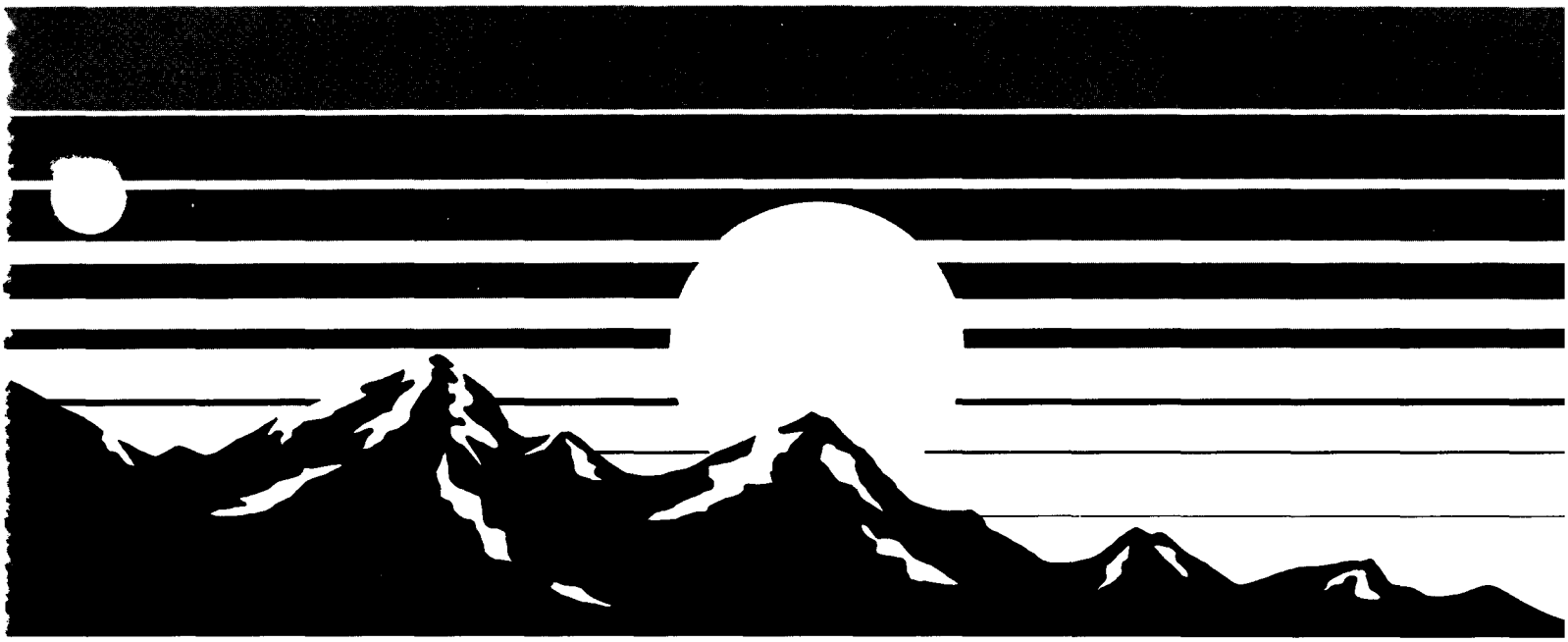

ANALYSIS AND REVIEW PROCEDURES

A total of eighty-nine individuals, private organizations, and federal, state, and local agencies submitted comments on the recommendations and/or analysis contained in the Headwaters Draft RMP/EIS. Of this total, thirty-two comments were received solely in response to the Headwaters Land Ownership Adjustment map which was mailed concurrent with, but separate from, the RMP/EIS document. Oral statements were presented by five individuals, agencies, or organizations at the RMP/EIS hearing in Helena, Montana; two of these were accompanied or followed up by written comments.

Most of those submitting comments were concerned with land ownership adjustments, grazing allotment and riparian habitat management, wilderness recommendations, oil and gas leasing and development, and forest management. Several commentors also voiced significant concerns about procedural matters, including compliance with the CEQ and BLM planning regulations. Table 7-1 shows the number of contributors by issues or resource.

All comments will be available for inspection at the Headwaters Resource Area office in Butte. In addition, all wilderness comments will accompany the BLM Montana State Director's wilderness recommendations to Washington for consideration by the BLM Director, the Secretary of the Interior, the President, and Congress.

COMMENTS AND RESPONSES

All comments were reviewed and considered. Table 7-3 shows the responses to comments that:

- relate to inadequacies or inaccuracies in the analysis or methodologies used,
- identify new significant impacts,
- recommend reasonable new alternatives,
- involve disagreements on interpretations of significance, or
- indicate significant misconceptions or misinterpretations of BLM programs and policies.

Each letter and each person who testified at the hearing was given an index number (Table 7-2). These index numbers were used in Table 7-3 to identify the comment contributors.

The comments and responses are arranged by topic in Table 7-3. Except for editing of misspelled words or obvious errors in punctuation, most comments are printed verbatim. In many cases, credit for the same comment was given to several contributors. The response to a comment either identifies that a change was made or provides rationale for why a change was not considered necessary. Editorial corrections were made either in the text or in the Errata, Appendix U, if appropriate, but were not responded to in Table 7-3.

Appendix V displays the comment letters received in response to the draft RMP/EIS. Letters received solely in response to the Headwaters Land Ownership Adjustment map were not printed because most consist of notes written on the margins or back of the map and are not reproducible in a document of this format.

TABLE 7-1
NUMBER OF CONTRIBUTORS BY ISSUE OR RESOURCE

Issue or Resource	Number of Contributors[1]
Oil and Gas Leasing Development	13
Grazing Allotment and Riparian Habitat Management	9
Wilderness Study Recommendations	14
Forest Management	9
Land Ownership Adjustments	53
Mineral Exploration and Development	5
Motorcycle Use Areas	6
Motorized Vehicle Access	6
Utility and Transportation Corridors	0
Coal Leasing	5
Special Designations	8
Soil, Water, and Air Resources	3
Wildlife and Fish Resources	8
Recreation, Visual, and Cultural Resources	6
Social and Economic Considerations	1
Weed Control	1
Fire Management	1
General	9

[1]These numbers cannot be added to total eighty-nine because many commentors addressed more than one issue or resource.

TABLE 7-2
LIST OF CONTRIBUTORS

Index Number	Contributors
	Federal Agencies
1	Advisory Council On Historic Preservation, Washington, D.C.
2	Department of Agriculture, Forest Service, Missoula, MT
3	Department of the Air Force, Air Force Regional Civil Engineer, Dallas, TX
4	Department of the Army, Omaha District Corps of Engineers, Omaha, NE
5	Department of the Interior, Bureau of Mines, Spokane, WA
6	Department of the Interior, Fish and Wildlife Service, Billings, MT (dated 7/15/83)
7	Department of the Interior, Fish and Wildlife Service, Billings, MT (dated 7/19/83)
8	Department of the Interior, National Park Service, Denver, CO
9 *	Department of the Interior, National Park Service, Omaha, NE
10	Department of Transportation, Federal Highway Administration, Denver, CO
11	Environmental Protection Agency, Denver, CO
	State Agencies
12	Montana Historical Society, Historic Preservation Office, Helena, MT
13	State of Montana, Office of the Governor, Helena, MT
	Local Agencies
14	Lewis and Clark County, Board of County Commissioners, Helena, MT (written and oral)
15	Teton County Conservation District, Choteau, MT
	Organizations
16	Atlantic Richfield Company, Denver, CO
17	Chevron, U.S.A. Inc., Denver, CO
18	Conoco Inc., Washington, D.C.
19	Continental Divide Trail Society, Bethesda, MD
20	Defenders of Wildlife, Missoula, MT
21	Great Bear Foundation, Missoula, MT
22 *	Helena Trail Riders, Helena, MT
23	Inland Forest Resource Council, Missoula, MT (oral)
24	Minerals Exploration Coalition, Denver, CO
25	Montana Audubon Council, Helena, MT
26	Montana Farmers Union, Great Falls, MT (oral)
27	Montana 4 x 4 Association, Inc., Dillon, MT
28	Montana Wilderness Association, Helena, MT
29	Montana Wildlife Federation, Helena, MT (oral)
30	National Wildlife Federation, Northern Rockies Natural Resource Center, Missoula, MT
31	National Wildlife Federation, Regional Executive, Bozeman, MT
32	Natural Resources Defense Council, Inc., Public Lands Institute, Denver, CO
33	Natural Resources Defense Council, Inc., Western Office, San Francisco, CA
34	Plum Creek Timber Company, Inc., Missoula, MT
35	Rocky Mountain Oil and Gas Association, Inc., Denver, CO
36	Shell Oil Company, Houston, TX
37	Sunny Vista Homeowners Association, Helena, MT
38	Superior Oil, Denver, CO
39	The Bob Marshall Alliance, Missoula, MT
40	Wildlands and Resources Association, Great Falls, MT

Individuals

41 ✲ Harry Albright, Townsend, MT
42 Milton L. Allen, Albany, NY
43 ✲ Charles R. Aumell, Helena, MT
44 ✲ Todd Barth, Billings, MT
45 Jerry Berner, Loma, MT
46 Bruce Bowler, Boise, ID
47 ✲ Michael and Diane Brook, Broadview, MT
48 ✲ Robert Bushnell, Helena, MT
49 Barbara Charlton, Helena, MT
50 David and Linnie Cough, Helena, MT
51 ✲ John Dilley, Missoula, MT
52 ✲ Jack B. Gehring, Helena, MT
53 ✲ Kenneth H. Gleason, Choteau, MT
54 ✲ H.B. Gloege, Helena, MT
55 Mortimer L. Hart, Butte, MT
56 Dan Heinz, Butte, MT (oral and written)
57 ✲ Kristi K. Humphrey, Billings, MT
58 ✲ Melvin and Betty Humphrey, Helena, MT
59 ✲ Terry and Mary Humphery, McCleary, WA
60 ✲ Thad and Kristin Humphrey, Billings, MT
61 ✲ Norman Johnson, Long Beach, CA
62 Mildred Leonard, Cambridge, MA
63 Tom Literski, Helena, MT
64 ✲ Walt Livingston, Fort Harrison, MT
65 ✲ Cary B. Lund, Helena, MT
66 ✲ Anna McLane, Helena, MT
67 ✲ Charles E. McLane, Helena, MT
68 ✲ W.E. McLane, Helena, MT
69 ✲ Arthur R. McLaren, Winston, MT
70 ✲ (unknown) McLaren, Winston, MT
71 ✲ Robert Marks, Clancy, MT
72 Susan L. Marsh, Bozeman, MT
73 Everett H. Newman, Choteau, MT
74 Gloria O'Connell, Helena, MT
75 ✲ W. Pat Pardis, Shelby, MT
76 William V. Peterson, Litchfield, MN
77 James Phelps, Billings, MT
78 ✲ Jim and Hal Plummer, Toston, MT
79 ✲ Mrs. Kenneth Poore, Great Falls, MT
80 Charles W. Proff, Dutton, MT
81 ✲ Madeline W. Rands, Choteau, MT
82 Reed Secord, Lighthouse Point, FL
83 John R. Swanson, Berkeley, CA
84 Ethel W. Thorniley, Detroit, MI
85 Richard Waltner, Billings, MT
86 ✲ George D. Warn, East Helena, MT
87 ✲ Sharon M. Warn, East Helena, MT
88 ✲ Russell and Sue Weingartner, Canyon Creek, MT
89 ✲ Robert Woods, Mountain Lake Terrace, WA

✲Indicates letters received solely in response to the Headwaters Land Ownership Adjustment map.

OIL AND GAS LEASING DEVELOPMENT

COMMENT	RESPONSE
1. The plan identifies significant resource issues on land lying within 2 to 3 miles of the north boundary of Yellowstone National Park. Oil and gas leasing and lease application activity is ongoing on National Forest lands immediately adjacent to those lands on and near the park boundary. However, oil and gas leasing, a significant issue to Yellowstone, has not been identified in the plan. If oil and gas leasing occurs near Yellowstone National Park, we request that the final environmental impact statement discuss and analyze impacts on air quality, groundwater, and wildlife habitat (including that of the threatened grizzly) in the Yellowstone ecosystem. [Comment Index Number: 8]	1. Oil and gas leasing and development was not identified as an issue for the Yellowstone area because of the minimal BLM-administered land in the area and because of the low potential for future oil and gas exploration activity. The nearest federal mineral estate administered by the BLM is approximately fifteen miles northwest of Gardiner, Montana. Most of the BLM land adjacent to the Gallatin National Forest has been identified as requiring special oil and gas leasing stipulations primarily to protect seasonally important big game habitat. Oil and gas leasing decisions for lands immediately north of Yellowstone National Park are based on the recommendations of the Gallatin National Forest, which currently is preparing a Forest Plan similar in scope to the Headwaters RMP.
2. To quantify the implications which the four alternatives and current management practices have for energy and minerals, we employed the RMOGA evaluation matrix to assess the development opportunities which would be foregone under each course of action (see attachment). This analysis highlights the impact of contemplated restrictions on the potential for resource development, with the Preferred Alternative yielding a figure which is 72% of the exploration opportunity in the Resource Area if only standard stipulations were applied. This compares with a percentage of 80% for the production alternative and, somewhat surprisingly, a figure of 86% for current management practices. This analysis demonstrates that the so-called resource production option is actually more restrictive than present management. This impact is felt principally because of the restrictive stipulations recommended for areas of highest oil and gas potential. [Comment Index Number: 16]	2. Many existing oil and gas leases along the Rocky Mountain Front were issued in the early 1970's prior to the passage of the Endangered Species Act of 1973. Stipulations presently needed to meet the minimum requirements of the ESA, even in the resource production alternative, account for most of the increase in restrictions over present management.
3. We are also concerned over what appears to be an implicit assumption in the Headwaters RMP; that oil and gas exploration cannot be undertaken without having severe negative impacts on an area's wildlife habitat and populations. At its Sheep Mountain facility in Colorado, Atlantic Richfield has demonstrated that it can operate a gas field in an area that has been designated as critical elk winter and calving range without having adverse impacts. In fact, studies by ARCO and the Bureau of Land Management have shown that the elk herd in this area is increasing annually. Clearly, an implicit assumption that wildlife and oil/gas exploration are incompatible, which ignores the environmental sensitivity of modern industry practices, should not influence the allocation of resources on our public lands. [Comment Index Number: 16, 17, 36, 38]	3. The restrictions on oil and gas activities proposed in the preferred alternative are considered necessary to protect a wide range of highly significant surface values, particularly along the Rocky Mountain Front. These values include scenery and open-space as well as habitat that supports a diverse array of sensitive wildlife species—elk, mule deer, grizzly bear, bighorn sheep, mountain goats, and potentially, the gray wolf. The preferred alternative does recognize the compatibility of wildlife and oil and gas exploration on approximately 388,708 acres of public land in the Resource Area where special (seasonal) stipulations are considered adequate to protect important wildlife values.
4. We encourage the BLM to reconsider the proposed imposition of additional regulatory controls on the areas of high oil and gas potential. While the Preferred Alternative claims that ONA designation is intended to preserve future management options while providing full protection for surface values, the proposed access restrictions could effectively deny us the opportunity to explore and develop the oil and gas resources along the Rocky Mountain Front. [Comment Index Number: 16, 17, 35]	4. The impacts of proposed access restrictions on oil and gas activities within Outstanding Natural Areas are recognized in the RMP/EIS. However, the majority (72%) of public land along the Rocky Mountain Front will remain available for oil and gas exploration and development. The statement that ONA designation "is intended to preserve future management options" refers to the added flexibility such designations permit when compared to wilderness designations, as discussed under Impacts on Energy and Minerals on page 111 of the Draft RMP/EIS.

TABLE 7-3 (cont.)

OIL AND GAS LEASING DEVELOPMENT

COMMENT	RESPONSE
5. We note that the Rocky Mountain Front study areas are recommended for ONA designation. Because of the unarguable high petroleum potential along the front we agree with this approach inasmuch as ONA designation does not carry the penalty of absolute withdrawal that Wilderness designation does. We note, however, your statement that ONA designation will, in your words, provide "essentially the same level of protection that Wilderness designation would provide." ONA protective stipulations being a discretionary matter we hope that, in the event this alternative is taken, you will recognize that oil and gas exploration and production are proveably both brief and reparable. [Comment Index Number: 18, 36]	5. The preferred alternative recognizes that the impacts of oil and gas exploration and production are brief, reparable, and tolerable for 72% of the public lands along the Rocky Mountain Front and 93% of all public land within the Headwaters Resource Area. However, the proposed plan establishes that, once existing leases expire, Outstanding Natural Areas will be managed similar to wilderness insofar as no surface occupancy nor motorized vehicle access will be permitted in such areas.
6. Surface occupancy should not be allowed in T16N, R6W, Sec. 32, even though the power line there already represents a substantial intrusion. Section 33 is also sensitive, though not directly on the Continental Divide or the likely Trail route. (See *Guide to the Continental Divide Trail*, vol. I: Northern Montana at 135.) [Comment Index Number: 19]	6. A prohibition on surface occupancy for all of Section 32 (T16N, R6W) is not considered necessary for the protection of the Continental Divide Trail route. Standard stipulations, including the Controlled or Limited Surface Use Stipulation, provide adequate control over the location of surface use and occupancy for situations where the actual location of sensitive resources, such as the Continental Divide Trail route, have not yet been determined.
7. The amount of acreage suggested for no leasing and no surface occupancy in the preferred alternative is simply not enough to adequately protect the grizzly or wolf. As the Fish and Wildlife Service noted in its biological opinion on the Rocky Mountain Front plan several years ago, simultaneous development in adjacent drainages could jeopardize both the grizzly and the wolf. The Bureau needs to adopt a plan that takes into account such a possibility. [Comment Index Number: 20, 30]	7. The preferred alternative effectively eliminates the possibility of oil and gas activities taking place simultaneously in adjacent drainages, to the extent permitted by land ownership patterns along the Rocky Mountain Front (see page 124 of Draft RMP/EIS). Pursuant to Section 7 of the Endangered Species Act, as amended, formal consultation with the Fish and Wildlife Service (FWS) has been initiated for the Headwaters RMP to determine the likelihood of jeopardy to the grizzly bear and other threatened and endangered species if the proposed plan is implemented. The results of this consultation will be used in preparing a Record of Decision for the Headwaters RMP and in developing site-specific activity plans necessary for RMP implementation. The BLM will continue to consult with the FWS and the Montana Department of Fish, Wildlife, and Parks for individual actions that may affect habitat for threatened and endangered species (see page 28 of Draft RMP/EIS).
8. The Bureau should identify those lands that are critical to these species (grizzly bear and gray wolf) and place them in a no leasing or no surface occupancy category. It would appear that Alternative C comes much closer to fulfilling the BLM's obligation to protect and enhance the habitat of endangered species. The preferred alternative seems like a minimal effort, geared toward keeping the grizzly from becoming endangered, rather than what's mandated by the Endangered Species Act—recovery. [Comment Index Number: 20, 21, 28, 30, 40]	8. Important grizzly bear habitats are all identified for no surface occupancy or no leasing under the preferred alternative. Key big game winter ranges important to the recovery of the gray wolf are similarily protected. While Alternative C does provide more protection for grizzly bear and gray wolf habitat, Alternative A is preferred because it would allow a higher level of oil and gas exploration and development while still providing opportunities for the recovery of these species. See also response to Comment Number 7 in this section.
9. Further, the lease stipulations presented on pages 208 and 209 should be rewritten to protect key habitat even in the event of oil and gas discovery. As they now stand, protections are afforded ony so long as oil and gas are not found. In any event, grizzly bear and grey wolf habitat should receive high priority and be improved with all due haste in accordance with the provisions of the Endangered Species Act. [Comment Index Number: 30]	9. While the stipulations referenced apply only to exploration and development activities, the BLM can and does restrict the timing of production activities in sensitive areas. The stipulation form (MSO 3100-49) that is used to identify seasonal restrictions on production was omitted from the draft RMP/EIS but has been included in the final document (see Appendix B). The preferred alternative identifies portions of the Rocky Mountain Front where seasonal production stipulations would be applied. See also response to Comments Number 7 and 8 of this section.

OIL AND GAS LEASING DEVELOPMENT

COMMENT	RESPONSE
10. In any alternative selected in this plan, two critical points should be addressed: (1) In what way will the agency gather information in order to adequately evaluate the energy and mineral resource potential within the planning areas, and (2) In areas where there is moderate to high potential for deposits of energy or minerals, how is the agency going to develop land use allocations which will be compatible with possible exploration for the development of these resources. [Comment Index Number: 36]	10. Information on the evergy and mineral resource potential in the Headwaters Resource Area was obtained from willing companies and individuals active in the area and, in the case of areas being studied for wilderness, from Geology, Energy, and Mineral (GEM) reports prepared under contract for the BLM. Additional information was provided by the U.S. Geological Survey, U.S. Bureau of Mines, and the Montana Bureau of Mines and Geology. The energy potential of the Rocky Mountain Front is assumed to be uniformly high. See also responses to Comments Number 3 and 5 in this section.
11. Seasonal Exploration Restrictions: Table 2-2 indicates that an area that is both a Grizzly Bear spring and summer range and a Elk and Mule deer winter range would have seasonal restrictions during the period 12/1-9/1. This would allow unrestricted work only during the period 9/1-12/1. This would, in many cases, be a stipulation that would make work on a lease impossible. If the seasonal restrictions were such that certain types of activities were allowed during the period 12/1-9/1, then the impact of this potential problem would be lessened. [Comment Index Number: 38]	11. The seasonal wildlife restrictions identified in Table 2-2 are considered necessary for the protection of important wildlife species. The restrictions for grizzly bear spring and summer range and elk and mule deer winter range, in particular, are considered essential for avoiding a jeopardy situation for the grizzly bear and gray wolf, respectively, under the Endangered Species Act. The amounts of public land within the Headwaters Resource Area likely to be affected by such overlapping seasonal restrictions (12/1-9/1) is approximately 14,000 acres, all of which is located along the Rocky Mountain Front. In practice along the Front, ninety days have provided an adequate drilling period for the typical holes drilled to date. Actual on-the-ground conditions, including weather and wildlife movements, will govern whether or not such seasonal restrictions can be modified should problems develop during work on a lease.
12. Seasonal Production Restrictions: Producing wells generally require daily attention in almost all cases and need periodic major work to keep them producing safely and efficiently. The seasonal restrictions placed on a lease must allow for work of this type. Acceptable restrictions might be to limit visits to daytime hours only and limit the number of vehicles and/or people allowed at a producing well at any one time. If occupancy of this nature is not allowed, then leases would probably not be attractive for exploration or development. [Comment Index Number: 38]	12. The RMP does not identify specific guidelines which will be applied to producing wells and other facilities; such guidelines will be developed on a case-by-case basis at the time of lease issuance or, in some cases, at the time of application for a permit to drill or in response to a sundry notice. Careful attention to the location of production facilities will be important in minimizing seasonal conflicts. However, it may be necessary to limit visits to wellheads located in more sensitive areas.
13. Existing leases: I think the Impact Statement should make a strong statement that existing leases within the area described are not subject to the surface occupancy and lease stipulation, nor any other statements described in the Draft Statement. [Comment Index Number: 38]	13. A statement to this effect has been added to the "Management Guidance Common to all Alternatives" section. This statement also discusses some of the implications of production and unit formation on the proposed stipulations.

TABLE 7-3 (cont.)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
1. Under the preferred alternative (Alternative A), seeding and interseeding is proposed for 2,560 acres. On page 118 of the draft, we note that the BLM is proposing to utilize native and introduced plants. We are very concerned if the introduced species to be utilized is crested wheatgrass. This type of conversion results in monotypic vegetation, essentially useless to wildlife. [Comment Index Number: 6]	1. Areas for reseeding and interseeding will be carefully mapped during activity plan development. The type of seeding proposed will be designed to fit the site being treated and accomplish the management objective stated for the allotment. Some crested wheatgrass seedings may be prescribed, but this plant is not viewed as a "cure-all." If properly managed and located, crested wheatgrass seedings can be used to accomplish multiple use objectives, including increasing early spring forage values for mule deer and antelope. It should be noted that the total treatment acreage proposed in Alternative A involves less than 1% of the resource area and is not confined to one location. Standard BLM range seeding practices include the use of native species (and taxonomic equivalents) whenever possible. Finally, wildlife habitat is afforded protection and/or mitigation through the use of a standard seeding prescription process that includes interdisciplinary review and consultation with the Montana Department of Fish, Wildlife, and Parks.
2. Regarding range reseeding, on page 237 (item #11) the draft states that all areas where vegetative manipulations are to occur will be rested at least two years after treatment. It has been our experience (and we recommend) that these areas should be rested for three growing seasons, to obtain good ground cover, plant vigor and wildlife habitat. [Comment Index Number: 6]	2. Two years growing season rest is a common recommendation. If the seeding is not ready for grazing use after two years rest, further deferment will be provided.
3. We recommend that during preparation of the Final EIS, more adequate attention be given to wetland-riparian habitat protection needs, especially regarding the time over which protective measures are to be implemented. According to the draft, the proposal is to improve 58.5% (22.6 miles) of the unsatisfactory riparian habitat on priority 1 allotments over a period of 20 years; another 20 years would presumably be required to improve the 29.5% (11.3 miles) of unsatisfactory riparian habitat on priority 2 allotments. Thus, forty years would be required to reach the desired goals. The issue of moose habitat (page 126) emphasizes our concern that not enough is being done soon enough to protect riparian habitat. Under Alternative A, moose habitat would only improve from 40% unsatisfactory to 34% unsatisfactory; only four of twelve allotments containing moose habitat would improve, the remaining eight would experience little change. Therefore, we recommend that the scheduling required to implement the AMP goals for riparian habitat be shortened significantly because of its importance to both wildlife and water quality. [Comment Index Number: 6]	3. The I category allotments have been reprioritized for implementation in accordance with current BLM grazing management policy (Appendix E). It is realistic to assume that two AMPs per year for the next twenty years can be implemented. Of the forty highest ranking I allotments, twenty-two contain approximately thirty miles, or 78% of the total unsatisfactory riparian habitat in the resource area. The thirty-seven lower ranking I allotments contain approximately four miles, or 10% of the total unsatisfactory riparian habitat. The remaining four and three-quarters miles, or 12%, of unsatisfactory riparian habitat are in the maintenance and custodial category allotments. In summary, Alternative A, as revised, provides for significant improvement of riparian habitat in a resource area where 72% of all riparian habitat is already in satisfactory condition. The reason for the relatively small improvement in winter-spring moose habitat condition under Alternative A is that the majority of this habitat occurs on two allotments where limited opportunity exists for development of grazing systems that are compatible with improving moose winter-spring habitat. In the case of the Muskrat Allotment (0249), periodic exclusion of livestock grazing may be employed if wildlife/livestock conflicts cannot be resolved through the development of grazing systems.

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
4. Given that more than a fourth of the riparian habitat in the Resource Area is in unsatisfactory condition (and particularly since much of this is critical grizzly habitat), Defenders of Wildlife supports the proposal to improve this situation. It's not clear from the plan that correcting this situation has been given a high enough priority in the plan. It would seem those areas with large percentages of riparian in unsatisfactory condition (particularly if they're in grizzly areas) should be the highest priority I areas. I also find it unacceptable that the unsatisfactory riparian areas in the M and C categories won't be improved. [Comment Index Number: 20]	4. Additional information has been provided in Appendix M that displays resource information considered in the determination of M, I, and C classifications for all allotments in the resource area. The classifications are the result of an interdisciplinary effort at identifying the most important priorities for future BLM management actions. These classifications are subject to revision based on new information acquired through monitoring and benefit/cost analysis. Management actions and funding of improvements can occur for M or C allotments but will be of lower priority than I allotments. For those M and C allotments within identified habitat for gizzly bear, our resource information indicates that none of the riparian habitat is in need of significant improvement. The Headwaters RMP/EIS does place high priority on riparian habitat improvement. The extensive time frames involved in such improvement are a result of anticipated staffing and budget constraints for AMP development. In prioritizing I allotments, both grizzly bear (and other threatened and endangered habitat) and riparian habitat were given high ranking and priority. All allotments containing key grizzly bear habitat, except one, are I allotments. The one exception is an allotment in which all grizzly bear and riparian habitat is in excellent condition (Allotment 6308). All allotments with extensive riparian habitat in unsatisfactory condition are I allotments. Most M and C allotments either lack riparian habitat or contain satisfactory riparian habitat. In general, M and C allotments also have limited management opportunities for improving habitat condition.
5. On the issue of grazing, we found almost no details in the draft of how grazing will be managed for the benefit of wildlife. The inference made is that bettering the range condition will increase wildlife benefits. Although we too believe that wildlife can benefit from bettering the range condition, we feel that other issues must also be considered to determine whether wildlife resources will receive any net benefits. Often times the range improvements (water, fencing, grazing systems) associated with intensive management have substantial negative impacts. For example, one ramification of intensive management is the intrusion of livestock into areas that previously were not utilized because of lack of water. After water developments are installed, livestock/wildlife competition will be spread over a broader area than was previously possible. Another impact is the often intensive utilization of forage in one or more of the pastures in a grazing system which leaves little or no residual cover for wildlife in these pastures. We feel these, as well as other pertinent issues, must be discussed in the final EIS before the assertion can be made that the proposed grazing management will benefit wildlife. As written, the draft does not discuss the negative implications of intensive management. Inasmuch as the draft indicates that grazing income to the U.S. Treasury from public lands in the Headwaters is about $58,000 and that wildlife related resources, through hunter-day use, result in $255,000 of economic stimulation, it appears that more attention should be given to addressing the impacts of grazing upon wildlife. [Comment Index Number: 6]	5. RMP-level guidance for wildlife habitat and livestock management can be found in the Draft RMP/EIS under Management Guidance Common to All Alternatives (pp. 25-29); in Appendix E, which discusses allotment-specific opportunities, conflicts, and objectives for wildlife; and in Chapter 4 (pp. 124-126), which identifies possible mitigating measures applicable for wildlife species. The RMP proposes to resolve livestock grazing/wildlife habitat conflicts in a variety of ways, including grazing system design; direct allocations to wildlife; establishment of utilization levels; decreasing livestock forage allocations; changing class or kind of livestock use or season of use; changing livestock distribution through salting, water development, or fencing; limited treatments, including seedings; and the use of deferred or rest-rotation grazing systems. Improving vegetative condition to a higher seral stage will result in a corresponding habitat change better suited to a higher climax wildlife population. As Alternative C makes clear, however, changing vegetative condition to lower seral stages can also be beneficial to wildlife. The relationship of vegetative condition to wildlife habitat condition is complex, depending on the wildlife species involved, the vegetative types being considered, and the primary season(s) of wildlife use. It should also be noted that unsatisfactory wildlife habitat conditions are not always the result of livestock grazing. Only where livestock cause or contribute to the problem can unsatisfactory conditions be corrected by changes in livestock management. In summary, considering present resource conditions in the resource area, the RMP provides the level of guidance needed to resolve the livestock management issue in a way that balances the needs of wildlife, watershed, and the livestock industry. Further details will be established during activity planning, at which time specific range improvements, treatments, grazing systems, and other appropriate actions will be analyzed by an interdisciplinary team through site-specific environmental analyses.

TABLE 7-3 (cont.)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
6. Monitoring of range conditions and trends will be very important in the Headwaters Resource Area, because 20,173 acres of grazing lands have not been inventoried and only 10 allotment Management Plans are now in existance. The BLM should conduct range surveys on the 20,173 unsurveyed acres whenever possible. [Comment Index Number: 13]	6. It is agreed that future monitoring of range conditions and trends is important. Some of the 20,173 acres not inspected in the most recent vegetative inventory are ungrazed. The monitoring plan will specify how and when the remaining grazed tracts will be inspected for range condition.
7. The BLM did not provide projected percentages of expected improvements in range conditions over the entire resource area. By not providing this information the question of the cost-benefits of their objectives arises. A time frame for implementation should be provided to give credence to their objectives. Without these answers the cost benefits of their objective can be unrealistic. [Comment Index Number: 13]	7. Projected changes in range condition were discussed in Chapter 4 of the Draft RMP/EIS (see pp. 117, 135, 142, and 151). In the process of allotment categorization, several factors were considered, including present range condition and potential for improvement. Those allotments that were tentatively identified in the I category as a result of this process reflect greater needs and opportunities for range improvement than do the M and C allotments. Accordingly, the I allotments also reflect the highest priorities for implementing the objectives of the RMP. Those improvements in range and riparian condition that are projected to meet specific objectives for I allotments are judged to be reasonable for the life of the RMP. As more detailed planning takes place with regard to specific range improvements for particular allotments, further benefit-cost comparisons will be made. Priorities have been developed for implementation of specific allotment management plans (AMPs) but time frames for the completion of the necessary range improvements required to implement these AMPs are subject to annual budget capabilities.
8. Changes in lessee management is not discussed. If management is retained with the operator, will objectives be accomplished on a wide scale? This should be addressed in the Final RMP. [Comment Index Number: 13]	8. As RMP objectives for a particular allotment are accomplished, management classifications (M, I, C) will be adjusted as appropriate in consultation with the Grazing Advisory Board and the individual range users. When a new grazing operator assumes management of a particular allotment, the same established RMP objectives will apply. Some changes in specific grazing practices can usually be accommodated for the new operator while meeting the same established resource objectives.
9. The State is concerned about possible substantive negative impacts to certain grazing permittees under the preferred alternative. The DEIS cites a 5-year horizon for phasing in livestock reductions. The State believes that where proposed actions threaten the viability of the livestock operator that every effort should be made to ameliorate this situation. The BLM might consider extending time frames, scaling down the proposed decrease in AUMs, helping locate alternate public rangelands or implementing more intensive management plans on these allotments. [Comment Index Number: 13]	9. Current BLM policy for phasing in livestock forage adjustments, including reductions, is summarized on p. 25 of the Draft. Under the circumstances existing within the resource area, it does not appear that the viability of any livestock operator is threatened; present BLM policy for phased in reductions concurrent with monitoring studies should largely mitigate these impacts to individual ranches.
10. The State has read with great interest the new Cooperative Management Agreement (CMA) program for selected livestock operations on the public lands. The sketchy details received to date indicate that only those permittees whose allotment is in the "M" (maintain) category will be eligible. Appendices D and E of the DEIS show that many allotments are in good repair in terms of vegetation and riparian areas, yet are categorized as "I" (improve) allotments solely for wildlife reasons. How does the BLM reconcile the seeming penalty of ineligibility for the CMA program for the livestock operators in these instances? [Comment Index Number: 13]	10. Current BLM policy directs that the Cooperative Management Agreement (CMA) program be initiated on M allotments. The policy also appears to permit CMAs for I and C allotments if, in the future, the operator demonstrates good stewardship practices.

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11. In grazing allotments targeted for a short term decrease in AUMs, the grazing permittee should receive consideration in the allocation of any long term increased forage production. [Comment Index Number: 13]	11. This is currently a provision of the grazing regulations.
12. One thing we don't understand has to do with the protection alternative that we support, and that is that there seems to be a very reduced federal commitment to financial enhancement of grazing allotments in that alternative. That is to say, the preferred, the no action, and the resource production alternatives all anticipate grazing allotment financial enhancements in the neighborhood of four hundred forty-two thousand to forty-nine thousand dollars. For some unexplained, as I can see, reason, the financial enhancements for Alternative C, the protection alternative, are almost half, a little bit more than half, or two hundred forty-eight thousand dollars. We don't see the logic behind that reduction and we don't see any connection really between that reduction and the other things that that alternative is addressing. [Comment Index Number: 14]	12. The lower costs for estimated range improvements under Alternative C (Table 2-5) do not reflect a lower management commitment toward financing improvements. What these lower figures do reflect, however, is the fact that fewer range improvements of certain types are necessary to improve or enhance wildlife and watershed conditions under Alternative C. A number of water developments and acreages to be reseeded under the preferred alternative would be omitted from this alternative; under the other alternatives, they would be done primarily to enhance livestock management with mitigating measures incorporated to protect wildlife and watershed values. While Alternative C projects lower range improvement costs, it should be noted that the lower stocking levels projected would result in an adverse economic impact to individual livestock operators and the industry as a whole.
13. One thing that wasn't so clear; however, was how specific concerns would be addressed on an allotment-by-allotment basis. For instance, in Appendix E (Opportunities For I Allotments) you might state "XYZ Allotment: riparian vegetation in unsatisfactory condition, excessive soil erosion, elk and deer winter range in unsatisfactory condition." You would then state in the Resource Management Objectives column something like improve riparian habitat, decrease erosion, improve elk and deer winter range. What seems to be lacking is the specific management action that needs to be taken to achieve some of these objectives, because in comparing Appendix N (Stocking Rate Adjustments) to Appendix E, it's not always clear how the improvements will be accomplished. Further, I'd like to have a better sense of what the priorities are for making these improvements. Given the reduced federal funds in recent years, it would appear that many of the improvements that involve intensive management may not get funded; it would have been helpful if the EIS would have looked at ways to meet resource objectives given possible budget constraints, which appear to be a reality. [Comment Index Number: 20]	13. Allotment-specific planning will occur according to priorities documented in Appendix E, as modified. A variety of management actions in addition to stocking rate adjustments will be used to meet the resource management objectives for a particular allotment; these actions are identified in Appendix M. At the time of activity planning, a more detailed analysis will be made and specific management actions needed to meet resource objectives for a particular allotment will be implemented. It is assumed that range program funding levels will permit implementation of two activity plans per year during the next twenty years. Also see the response to Comment Number 5 in this section.
14. I thought that you should know that the Teton County SCS, the Forest Service, and Mr. Newman have the first and only working joint agreement. This is on the Blind Horse Creek or we call it Chicken Coulee Allotment. The trip we took into this area last year was very impressive on development of these water sources for better utilization of the range grass. The range was not over grazed. Mr. Newman was rotating the pastures. He is trying to improve the vegetation from the time he took the allotment over. I would be opposed to eliminating cattle from this allotment down the road. [Comment Index Number: 80]	14. We recognize and appreciate the joint cooperation between Mr. Newman, the Teton Conservation District, the U.S. Forest Service, and the Bureau of Land Management in efforts to improve conditions on the Chicken Coulee Allotment (#6303). While we would agree that indeed there has been good progress, there are also some areas where further improvement is desirable and we anticipate the continued cooperation of all of these parties in meeting these objectives. No adjustment in livestock numbers or season of use are proposed for the Chicken Coulee allotment.

TABLE 7-3 (cont.)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
15. Likewise, the DEIS offers inadequate justification for sagebrush control/burning projects mentioned on page 125 and again on page 127. There are high wildlife values associated with sagebrush including the elk calving habitat mentioned on page 125. [Comment Index Number: 30]	15. Sagebrush controlled-burning projects are considered for those sites with high potential for increase in grasses and forbs following reduction in woody species. Increases in grasses and forbs can improve watershed cover, increase forage production to benefit livestock, and, in some situations, benefit wildlife as well. Such proposals are planned on a site-specific basis, in consultation with the Montana Department of Fish, Wildlife, and Parks and with full interdisciplinary review by appropriate BLM specialists. Future projects of this nature are not likely to be carried out on a large scale within the resource area since only an estimated 300 acres are identified for treatment. The specific effects of sagebrush control and burning projects will be carefully considered and all appropriate mitigating measures will be applied prior to implementation.
16. The Muskrat Allotment Plan must be closely coordinated with the Elk Horns wildlife management plans now being prepared by the Helena National Forest. The proposed grazing rates for this allotment, a sensitive wildlife area, seem excessive and no mention is made of any proposed or current coordination. [Comment Index Number: 31]	16. Under Alternative A (the Proposed RMP) the target stocking level for the Muskrat Allotment #0249 is 109 AUMs below existing preference (see Appendix N). This adjustment will be made in accordance with current BLM policy that requires the use of monitoring information in conjunction with the stated target figure. Specific resource management objectives have been identified in Appendix E for this allotment that recognize wildlife needs, and the Forest Service has been consulted in their formulation. As more detailed activity planning is done for the Muskrat Allotment, the Forest Service and Montana Department of Fish, Wildlife, and Parks will be consulted further and full consideration will be given to any specific guidelines they may have for the Elkhorn Wildlife Management Area.
17. Although the EIS proposals include livestock numbers and incorporate, for the most part, existing seasons of use, they lack any specific grazing systems and contain utilization levels only for a fraction of the allotments. Existing grazing systems are not described for each allotment, and no specific grazing systems are proposed; instead, the EIS merely describes general types of grazing systems that might conceivably be implemented in unspecified allotments in the future. (EIS, p. 25 and App. G.) The EIS fails to include existing utilization levels, even though such levels presumably will continue under the "no action" alternative. Moreover, specific utilization levels are proposed only for a few Category I allotments (e.g., App. E, p. 228) and no such levels are proposed for any Category M or C allotments. The EIS does contain, at least for Category I allotments, the objectives that a specific grazing management program should meet in each allotment. See App. E. However, for the most part it fails to identify or analyze any specific actions that must be taken to achieve these objectives. The Bureau's "objectives" are stated in general terms like "improve the riparian habitat," "improve vegetative cover and livestock distribution patterns," and "limit livestock utilization" (e.g., pp. 222-23), but few specific actions that will attain these ends are identified. Such proposals are particularly important since, as the Bureau admits, "implementation of grazing systems" and other specific actions are necessary to attain these objectives, and the EIS's impact analysis depends upon the development of such unidentified actions. (E.g., pp., 117-18, 143.) With respect to Category M and C allotments, the EIS even lacks specific management objectives, much less specific proposals, See App. E.	17. The Final RMP/EIS has been modified to incorporate additional information that documents the interdisciplinary resource considerations used in making the tentative classifications (M, I, or C) for each grazing allotment in the resource area (Appendix M). This process resulted in an I classificaiton for allotments having direct forage competition between livestock and wildlife or having other significant resource problems, such as soil erosion or water quality. For allotments identified as either M or C, significant resource opportunities, problems, or conflicts either do not presently exist or it is not feasible for changes to be initiated. Specific resource management objectives have been established for those allotments where conflict situations occur (Appendix E) and other management actions recommended for specific allotments are found in Appendix N. Where no specific opportunities, problems, or conflicts were identified, wildlife habitat and nonconsumptive resource values will be managed to maintain present satisfactory or high quality conditions. At the activity level of planning (primarily Allotment Management Plans and Habitat Management Plans) site-specific range improvements, grazing systems, and wildlife habitat management actions will be considered and analysed on an interdisciplinary basis through environmental assessments. Such proposed actions will be identified and published in Rangeland Program Summary (RPS) documents, in accordance with current BLM grazing regulations. Specific management actions will be tailored to specific allotment situations and applied in the best combination to meet resource objectives. Such management actions are listed in Appendix M.

TABLE 7-3 (cont.)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT

18. The court in NRDC v. Morton required EISs to "discuss in detail . . . all reasonable alternatives" to proposed livestock grazing activities. To satisfy this mandate, the alternatives must encompass significantly different levels of livestock grazing, including "no grazing," and a full range of management practices. The grazing alternatives in the Headwaters EIS fall far short of these requirements.

The alternative livestock forage allocations in the EIS do not vary significantly. There is little difference even between the resource protection (27,036 AUMs) and resource production (33,954 AUMs) alternatives. The resource production alternative is not "meaningfully lower" than the proposed action, as the Bureau has previously acknowledged is necessary. "Draft Guidelines for Preparing Grazing EISs," p. 23 (April 1979). Moreover, the EIS lacks a "no grazing" alternative, which is necessary in order to provide a baseline for comparison of all other alternatives and to protect riparian and other degraded resources. See Draft Guidelines, at 23; "Final Grazing Management Policy," p. 1-18 (I.M. No. 82-292, March 5, 1982). Thus, it is clear that the Bureau has already decided to maintain stocking levels at approximately the existing numbers and that the consideration of alternatives in the EIS has been a mere formal exercise.

The EIS obviously lacks a "full range of management practices," as required by the Final Grazing Management Policy, supra, at 1-18. In fact, the EIS fails to consider any alternative management practices. For example, the alternatives do not include any different grazing systems, utilization levels, or seasons of use. The Bureau has demonstrated in other grazing EISs that it can consider a range of alternative grazing systems, seasons of use and utilization levels for each allotment. See, e.g., Southern Malheur Draft Grazing EIS, Vale District, Oregon (1983); Willow Creek Final Grazing EIS, Susanville District, California (1982). The absence of such alternatives in the Headwaters EIS is a critical flaw.
[Comment Index Number: 33]

RESPONSE

18. Results of public participation activities, carried out between 1979-1983 according to requirements of 43 CFR 1610.2, helped shape a reasonable range of alternative livestock forage allocations for consideration and development in the RMP. The RMP/EIS analysis indicates that reducing livestock forage allocations is not the most frequent or appropriate action required to remedy present resource conflicts, such as unsatisfactory riparian habitat conditions. Many of the other actions shown in Table M, p. 295 of the Draft will be more appropriate in relation to specific problems. More specific management actions for each allotment, including changes in the kind of grazing system and the season of use, will be considered and evaluated at the time of activity planning (AMPs, HMPs). A No Action alternative that constitutes existing management direction and present resource use levels (43 CFR 1610. 4-5) has been considered and analyzed in detail.

As discussed in Chapter 2 under Alternatives Eliminated From Detailed Study, a No Grazing alternative was considered and analyzed during the scoping phase of developing this resource management plan. Based on this analysis, the No Grazing alternative was dropped from further discussion in the Draft RMP/EIS as provided in Section 1502.14(a) of the regulations for implementing the procedural provisions of the National Environmental Policy Act, as promulgated by the President's Council on Environmental Quality (CEQ).

The full analysis of the No Grazing alternative, in compliance with Section 1502.21 of the regulations cited, is available at the Butte District office for inspection by interested persons. The following impact analysis summary and conclusions for the No Grazing alternative are provided to further clarify why this alternative was not carried forward in the document.

Livestock Grazing

The exclusion of livestock from public lands in the resource area would require construction of approximately 2,090 miles of fence at an approximate total cost of $6,270,000. Annual maintenance cost for the newly constructed fence and the approximately 1,200 miles of present boundary fence (now maintained by livestock operators) would be borne by BLM at an annual cost of about $164,500. In addition, the BLM's present investments in interior allotment fencing for livestock management would be lost except for the salvage value of the fence material. The same would apply to investments already made in water and other management facilities unless they were of use to wildlife. BLM would assume maintenance cost on the water developments and other facilities not abandoned.

The cost of the fences, water facilities, etc. now in place on public land has often been borne partially or entirely by the livestock operator using the allotment. If the grazing authorizations were cancelled, operators would be entitled to monetary compensation for their lost investment in range improvements on the public land.

All existing public road rights-of-way would be fenced and/or additional cattleguards would be installed where public lands are crossed; all future public road rights-of-way grants similarly would be subject to fencing.

Livestock trespass detection and abatement also would require significant annual BLM funding.

(Response continued on next page)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
	Wildlife Previous analyses have shown that the total exclusion of livestock is not necessarily a desirable action to meet management objectives for wildlife habitat. In the Prairie Potholes EIS, for example, it was found that "The lack of livestock grazing would not necessarily improve the quantity of all wildlife forage and cover. Additional forage and cover would more than satisfy the needs of increased populations of upland game birds, waterfowl, nongame wildlife, and fisheries. Big game forage, however, could be reduced as plant communities changed from shrubs to grass." The long term result is uncertain as the area has always been grazed by large ungulates (buffalo before livestock), and the response of wildlife species in the absence of large ungulates has not been observed over such a large area. The extensive fencing required for implementation of a No Grazing alternative could also cause adverse impacts to elk, deer, and antelope by disrupting established patterns of wildlife movement. **Vegetation** The short-term effects of eliminating livestock grazing on public lands would include improving the vigor of those plant species that are preferred as forage by livestock in many grazing allotments. The amount of vegetation remaining onsite as residual cover and litter would increase markedly. No dramatic resource area-wide changes would be expected in the composition of vegetative communities in the short term because the establishment of new long-lived perennial plants, which characterize the vegetation in this region, occurs over a longer period of years. Even the sites with the greatest potential to respond vegetatively to management changes would require an estimated five years to improve from a fair to good condition rating under the most favorable management practices. (Refer to Appendix M for a discussion of how sites were classified and how vegetative condition ratings were assigned to plant communities found on these sites). The expected increase in residual vegetation would also increase the potential for wildfires. Wildfires would be expected to spread rapidly and burn more intensely. The long-term effects of elimination of livestock grazing can be estimated thru inspection of areas where grazing has been excluded for a relatively long period of years. Such areas were located and inspected during the course of the vegetative inventory. In general, these areas are strongly dominated by long-lived perennial grasses that provide the forage preferred by cattle, elk, and other large ungulates that subsist mainly on grass and grass-like plants. The exceptions to this are sites where woody vegetation dominates the site if undisturbed. The plants in these communities are often very coarse and some exhibit decadence as a result of excessive standing litter within the crown of the plant. **Recreation** Recreation access would be affected by a number of factors if cattle use of BLM land is eliminated. The principle factor is that of fencing. New fences along property boundaries and easements or rights-of-way would inhibit recreational travel both with vehicles and on foot or horseback. In addition, many vehicle ways are presently maintained by the livestock user for access to the allotments. Such maintenance enhances recreational opportunities by preserving traditional routes. As a result of (Response continued on next page)

TABLE 7-3 (cont.)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
	the elimination of grazing opportunities, ranchers and other landowners may become less inclined to allow recreational use of their private land in conjunction with the public lands. On the other hand, fencing would identify the boundaries of public land and thus would help users to stay on public land for their recreational pursuits, eliminating some of the present conflicts between private landowners and recreationists, particularly along waterways. Assuming that public access remains available, the elimination of livestock from areas that are popular for recreation generally would enhance the recreational experience. Roadless and undeveloped areas would appear more wild without the presence of cattle. The reduction of manure and flies would also enhance recreational opportunities. Riparian zones would be less trampled and often more desirable for camping, fishing, and other similar activities. Hunters would not have to contend with cattle on public lands during the hunting seasons, when cattle movement and activity can affect game. Vegetative changes would take place that could affect recreation. More vigorous vegetative growth would generally enhance the visual aspects of recreational activities. Changes in wildlife populations would in turn affect big and small game observation and hunting. Depending on the specific site conditions, more shrubs or grass would influence the amount of desirable space for picnicking, camping, or other recreational activities. Wildfires may become more frequent and severe, thus creating public hazards and impacting the physical environment that recreational activities depend on over the long term. **Livestock Production** The exclusion of livestock grazing on public lands in the entire resource area would result in a decrease in production of red meat. Of the 31,501 AUMs currently authorized, about 90% or 28,350 AUMs are harvested each year. The remainder is accounted for by nonuse applications received and approved in the average year. If each AUM of livestock forage sold produces a monthly weight gain of 60 pounds (or 2 pounds per day) the decrease in red meat production under this alternative can be estimated at 1,701,054 pounds per year. **Economics** The elimination of all grazing from public lands in the resource area would affect 327 allotments and 292 permittees/lessees. Of these permittees/lessees, 111 have 25 AUMs or less of BLM grazing. It is assumed that operators with so few AUMs would not be significantly affected by changes in BLM grazing. For operators with more than 25 AUMs of BLM grazing, the No Grazing alternative would result in a decrease in ranch income related to ranch size and the individual rancher's dependency on BLM grazing. Average changes in income vary from a 131% decrease for operators with 100 or less brood cows to a decrease of 3.8% for operators with more than 1,000 brood cows. The toal decrease in net annual income for the analyzed ranches would be $1,324,185, a decrease of 18.5%. Elimination of federal grazing would reduce permit values for 181 ranches by the full amount of their current value of $2,786,900. These decreases in permit value would have a negative effect on the ability of ranchers to borrow money and affect the sale value of these ranches. Ranches that are heavily dependent on BLM grazing could face an even greater reduction in property value, since the ranch may no longer represent an economic unit.

TABLE 7-3 (cont.)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
	A major component of an operators income comes from ranching. This is true for all but the smallest ranches that may produce more income from crops or from outside sources. Therefore, a reduction in BLM grazing would have a direct effect upon personal income. Even with large cuts in income, most ranchers would continue ranching in the short term. One of the major determining factors in how long an operation can sustain itself through depreciation, deferring maintenance, or using equity capital is the operators current debt load. If the rancher's land is paid for, it is likely that they can continue in business. **Social** The social wellbeing of 292 ranch families would decrease under this alternative. The magnitude of impacts would be related to the dependency of the ranch upon BLM grazing and the economic health of each individual operation. Some would be severely impacted while others would see little effect. Those operators with both a high dependency upon BLM grazing and a high debt load could be forced out of business or forced to find outside employment. However, prospects for outside employment in rural areas may not be good. If a rancher were forced to quit the livestock business many intangible losses could also occur. Among these are the loss of opportunity to live a preferred lifestyle, loss of ancestral ties to the land, and the possible breakup of extended families and close circles of friends. **Regional Economics** Under a No Grazing alternative, there would be an annual reduction in the value of livestock sales of approximately $2,254,000. The decrease in total annual gross business volume would be approximately $7,771,000. Total employment in the resource area would decrease by approximately 119 people and total earnings would decrease by approximately $2,357,000 anually (less than 1% of the resource area total in 1980). This would be insignificant to the economy of the total resource area. **Social Attitudes** No specific information on attitudes toward the No Grazing alternative has been collected. However, the reaction of ranchers and those who identify with them can be expected to be extremely negative. Even though many ranchers would experience little or no impact personally, they would likely sympathize with those who would experience adverse impacts. Given the current economic climate for the livestock industry, this alternative would likely be viewed as one more step in forcing small family ranchers out of business. It could be expected that widespread resentment toward BLM policies would grow and persist for the foreseeable future. This alternative would strengthen resolve that planning and management of the public lands be done at the local level. (Response continued on next page)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
19. The EIS's discussion of environmental impacts to range resources is extremely generalized and unsubstantiated, and thus fails to satisfy NEPA's requirements. The judgement in NRDC v. Morton requires EISs to analyze "the actual environmental effects of particular [grazing] permits or groups of permits in specific areas." Although the Headwaters EIS sets forth aggregate figures that summarize anticipated impacts of proposed grazing to range resources (e.g., pp. 116-18), it completely lacks the "individualized assessment of the impact of such grazing on local environments" required by NRDC v. Morton. The EIS must analyze and describe environmental consequences to particular allotments, not just aggregate impacts to the entire area. The EIS also fails to present available range monitoring data, describe the data necessary to make management decisions, or specify when and how such data will be obtained. The EIS states that livestock use adjustments will be based in part on "monitoring" (p. 25) and also acknowledges that some monitoring data are available (App. N, p. 296). However, these monitoring data are not described, and the EIS never specifies what kind and amount of monitoring data are necessary to make grazing decisions. In particular, the EIS fails to explain if and why available data are inadequate, and why such data cannot be extrapolated to make necessary grazing decisions as soon as possible in similar allotments lacking such data. Without such explanations, the public will never know which data are "acceptable" to support actual grazing decisions, and such decisions may be deferred indefinitely. Finally, the environmental impact analysis is also unsatisfactory because it is based on hypothetical proposals that have yet to be identified. For example, predicted improvements are "dependent upon implementation of grazing systems, installation of range improvements, and performance of land treatments" (p. 117), even though no such specific proposals are identified or analyzed in the EIS. Similarly, "improvement in riparian condition" is premised upon unidentified "livestock grazing systems. . .[and] season-of-use changes." (p. 120). The BLM cannot simply expect the public to trust that appropriate actions will be identified in the future and that as a result resource problems will be resolved. [Comment Index Number: 33]	19. The level of impact analysis presented in the document is commensurate with the level of planning guidance needed to resolve the range management issue in this RMP. BLM policy and statute (P.L. 95-514, Sec. 5(d)) require that more localized environmental assessments for specific range improvements and other changes in management be done at the activity planning stage. On pages 24 and 236 of the Draft RMP/EIS, the need for future environmental analysis has been documented. The aggregate figures presented in the Headwaters Draft RMP/EIS to summarize anticipated impacts are in many cases based on more localized assessments of anticipated impacts and needed improvements. Such assessments were not necessarily focused on individual allotments. For example, projected changes in range condition for I allotments were based on the expected response of specific ecological sites to changes in management. Soils, site potential, mean annual precipitation, present vegetative community and composition, and other factors were considered in forecasting the amount of change that could be expected on a site. Appendix I identifies the types of studies and methodologies to be used in monitoring the effects of grazing management. A detailed monitoring plan will be prepared in 1984. The I category allotments will receive the majority of attention to assure that objectives set forth to resolve conflicts are being met. The M and C allotments will be monitored at an intensity to detect problems or conflicts that may arise. As allotment-specific decisions are made as a result of monitoring, the public will be provided notice through the use of Rangeland Program Summaries published periodically during implementation. Also see response to Comment Number 13 in this section.
20. The EIS contains estimates of current grazing capacity in most allotments, but lacks other important range condition and resource information needed for the reader to assess the impacts of the proposed actions. The statistical data on range condition (App. D) is useful, but it must be supplemented by descriptive information in order to ascertain and analyze specific resource problems. Such descriptions are clearly presented for Category I allotments (App. E), and we commend the agency for providing such specific information. However, no such descriptions are offered for Category M or C allotments, suggesting that the agency has impermissibly written these areas off. The Bureau's failure to analyze resource problems in many allotments reflects a broader deficiency of the EIS's land categorization proposals. The EIS announces categorization decisions but lacks any discussion of how particular decisions were made. Without descriptive information on resource problems and opportunities in all allotments it is impossible for the reader to assess the proposed categorization decisions. The EIS should provide such descriptions for all allotments and should analyze how the categorization criteria were applied to reach these proposed decisions. The public would then have a mean- (Comment continued on next page)	20. The Final RMP/EIS has been modified to incorporate additional information that was used in categorizing allotments. (See Appendix M).

TABLE 7-3 (cont.)

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
ingful opportunity to comment on the categorization decisions, as contemplated by the "Final Grazing Management Policy," pp. 1-11 to 1-15. As written, the Headwaters EIS effectively bars the public (other than ranchers) from taking part in these important decisions. [Comment Index Number: 33]	
21. The EIS also announces two possible priorization schemes for category I allotments, as well as "final" management priorities. (App. E). It is unacceptable for "final" decisions to be made prior to public comment and selection of the preferred alternative. To establish "final" decisions at this stage of the process makes a mockery of NEPA's requirement of full disclosure and public participation prior to agency decisions. [Comment Index Number: 33]	21. The word "final" was a poor choice of words. The column that was marked final was meant to represent the interdisciplinary priority that was assigned after balancing the wildlife and livestock priorities. It was only "final" in the sense that it represented an interdisciplinary priority as opposed to a single program's priority. In the Final RMP/EIS, a new ranking system has been used and is displayed and explained in Appendix E.
22. Finally, the proposed action will produce a relatively small number of additional AUMs at a very high cost. The EIS fails to justify this large expenditure, which in large part consists of a subsidy to the livestock industry. Given recent budget reductions, it is very questionable whether many of the "range improvements" that inure primarily to the ranchers should be implemented. The EIS acknowledges that the "initial proposed action" is "no action." (p. 15) Such an approach is unacceptable given the resource problems that admittedly exist in the area. Moreover, additional monitoring is not needed to make adjustments in existing grazing use where, as here, available range information clearly demonstrates the need for such changes. Nor is livestock monitoring required before making planning decisions that are needed to protect important resource values, like endangered grizzly bears (pp. 91-93), that should take precedence over livestock grazing. In such cases, livestock reductions or modifications should be implemented as soon as possible. To delay needed modifications in existing management under the circumstances contravenes the Bureau's obligation under FLPMA to "take any action necessary to prevent unnecessary or undue degradation" of the public lands. [Comment Index Number: 33]	22. The preferred alternative for this RMP differs from the no action alternative and provides for changes in present grazing management to resolve resource conflicts. Additional monitoring studies are needed to further analyze, confirm or adjust target stocking levels and to be consistent with current BLM policy. A preliminary benefit/cost estimate has been developed for each I allotment based on current information and professional judgment (see Appendix E). Further benefit/cost analysis will be done on an allotment-specific basis to fully evaluate the effectiveness of improvements needed to accomplish management changes.
23. Appendix E: Priority has assigned numbers 1 and 2, but no explanation of meaning of 1 and 2 given in text. [Comment Index Number: 74]	23. Appendix E has been modified in the Final RMP/EIS to more accurately reflect management and implementation priorities for I allotments. Those allotments with an A designation have the highest priority followed in descending order by B, C, and D categories. Highest ranked allotments will receive highest priority for investments in range improvements and land treatments, for monitoring efforts, and for development of activity plans. In the Draft RMP/EIS, (1) indicated high priority, while (2) indicated low priority.
24. Do not know what is really meant by "alternative". What are the alternatives being considered for specific allotments? [Comment Index Number: 74]	24. Alternatives were developed for I allotments by analyzing different short-term changes in livestock stocking rates (Appendix N) and by adjusting implementation priorities (Appendix E). Alternatives were not analyzed for M and C allotments since, by definition, these allotments either are in satisfactory resource condition or, where conditions are unsatisfactory, viable opportunities to correct problems are lacking.

GRAZING ALLOTMENT AND RIPARIAN HABITAT MANAGEMENT

COMMENT	RESPONSE
25. No mention is made of present Range User—B.L.M. cooperation in current managememt; i.e., deferred grazing (as defined in appendix G). Appendix E seems to suggest that deferred grazing is the wrong alternative plan. [Comment Index Number: 74]	25. Regardless of which kind of grazing system may be used to meet specified allotment objectives, the participation and cooperation of the individual rancher is recognized as being a key ingredient to success. Appendix E lists specific resource management objectives for specific I allotments and is not intended to suggest that the practice of deferred grazing may be wrong. For each allotment, a combination of different management practices may be required to address resource conflicts/opportunities.

WILDERNESS STUDY RECOMMENDATIONS

1. Because of the importance of the three are as known as Deep Creek/Battle Creek, Blind Horse Creek, and Chute Mountain to wildlife, including endangered species, we suggest that you very seriously consider recommending these areas to Congress as suitable for wilderness. Some of the impacts to wildlife are eliminated or dampened when the provisions for wilderness management are in place, and due to the potential for resource extraction in these areas, wilderness designation may well be the best option available to insure long-term protection of these areas and their associated wildlife, particularly the grizzly. If you decide that you are unable to recommend these areas for wilderness, then we request that they be managed as roadless areas. [Comment Index Number: 6, 11, 21]	1. Designation and management of Deep Creek/Battle Creek, Blind Horse Creek, and Chute Mountain as wilderness is one of several options considered for the protection of wildlife habitat, including grizzly bear habitat. All the alternatives address the BLM's legal obligations to protect the grizzly bear and its habitat as well as provide for other resource uses. Alternative A, the proposed action, provides three significant types of protection for wildlife habitat in these areas by: designating the areas as Outstanding Natural Areas, establishing no surface occupancy restrictions for portions of the areas, and designating areas where leasing will not be allowed.
2. On the other hand, the Black Sage and Yellowstone River Island areas don't have nearly the wilderness potential as the Front areas. Nevertheless, as important roadless areas their wild nature should be preserved. Clearly, the roadless attributes of the Black Sage area aren't very highly valued in the DEIS. [Comment Index Number: 20]	2. The roadless attributes of the Black Sage area were one of several factors that were considered in making the nonsuitable recommendation (see Appendix R of the Draft RMP/EIS for a complete discussion of the BLM's wilderness study policy.) The many impacts on naturalness did detract from the overall wilderness quality of the area, but the numerous range improvements, irregular configuration, and poorly identified boundaries were also important factors in the nonsuitable recommendation. Although neither the Yellowstone River Island nor the Black Sage area are being recommended for wilderness designation, it is unlikely that either area will be significantly altered by new roads or other developments during the life of this plan.
3. Although there are many positive aspects to the Preferred Alternative "A" the MWA supports the more protective Alternative "C" as a better means of balancing resource production demands with the outstanding wildland/wildlife values within the Headwaters Resource Area. In particular, we support statutory wilderness designation of the three Rocky Mountain Front WSA's: Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek. The Bob Marshall Alliance, of which the MWA is a member, has endorsed Teton and Deep Creek national forest additions to the Bob Marshall Wilderness along the eastern front national forest boundary so as not to leave a strip of unprotected national forest land between the Bob Marshall and the BLM WSA's. Congress will soon consider the Bob Marshall additions. We are hopeful that the Bob Marshall Wilderness boundary will soon be expanded to protect as much of this great ecosystem as possible. [Comment Index Number: 28, 39]	3. BLM policy requires that all areas under wilderness study must be evaluated independently from contiguous nondesignated agency lands. A major point of consideration at this time is whether or not these tack-on study areas could be managed for wilderness if Congress did not designate the adjacent F.S. lands. By designating Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek as Outstanding Natural Areas the BLM is ensuring the same comparable short-term protection as wilderness. Consequently, the option will be available in the future to reevaluate these areas for wilderness should Congress designate the contiguous Bob Marshall additions and if wilderness remains a public issue.

TABLE 7-3 (cont.)

WILDERNESS STUDY RECOMMENDATIONS

COMMENT	RESPONSE
4. Yellowstone River Island (MT-075-133) would be an ecologically unique addition to the National Wilderness Preservation System and should be so designated. [Comment Index Number: 28]	4. Although the Yellowstone River Island would increase the ecological diversity of the National Wilderness Preservation System, this is only one factor that must be considered in determining whether an area should be recommended as suitable for wilderness designation. Appendix R in the Draft RMP/EIS describes the two criteria and six quality standards that are used in the study process. In the case of the Yellowstone River Island, its small size, offsite impacts, and manageability problems outweighed its contribution to ecosystem diversity.
5. The rationale presented on page 115 and in Appendix L for designation of the Blind Horse, Deep Creek/Battle Creek, Black Sage, Chute Mountain, and Yellowstone River Island as Outstanding Natural Areas rather than Wilderness Areas is invalid. Short-term protection of these areas is simply not equivalent to the long-term protection which wilderness designation would provide. It is inconsistent to protect an area with high wilderness values only until a commercially viable product is discovered thereon. The justification that some of these areas may have high oil and gas potential fails to recognize that in some cases higher values exist than those associated with production of oil and gas. [Comment Index Number: 30, 32, 45, 50]	5. It is assumed that the study areas this comment is referring to are Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek, since the remaining two areas are not being recommended for special designation. These three areas were studied for wilderness under authority of Section 202 of FLPMA. The BLM wilderness study evaluation was based on the two planning criteria and six quality standards as sited on page 310 of the Draft RMP. These guidelines come from the Federal Register release on February 3, 1982 entitled: Wilderness Study Policy; Policies, Criteria and Guidelines for Conducting Wilderness Studies on Public Lands. Energy and mineral values were only one of the eight primary factors considered. For the three areas along the Rocky Mountain Front, the primary factors influencing the nonsuitable recommendations were small size, inability to significantly contribute to the National Wilderness Preservation System, poor manageability (irregular and poorly identifiable legal boundaries, private inholdings, grandfathered oil and gas leases, etc.), and energy values. While considerations of these factors resulted in the decision to recommend the areas as nonsuitable for wilderness designation, it was determined that some form of protective management was justified. Therefore the areas were recommended for designation as Outstanding Natural Areas (ONA). The intent of ONA designation is not just to protect important surface values until a commercially viable product is discovered. The intent is to protect the unique resource values of these areas while allowing certain types of compatible activities that might not be allowed under wilderness management. For example, oil and gas leasing can be allowed in ONAs, although in this case such leases would be accompanied by no surface occupancy stipulations to protect surface values.
6. In the Blind Horse, Deep Creek/Battle Creek and Black Sage areas public comment favored either wilderness designation or further study. Public comments relating to the Chute Mountain and Yellowstone River Island areas were inconclusive. See Appendix L. In view of these results BLM seems to be ignoring public opinion in favor of oil and gas and mineral exploration. [Comment Index Number: 30]	6. The public comments analyzed in the Draft RMP/EIS were received during the 1978-1980 wilderness inventory process. At that time, several public comment periods were established so that interested people could comment on whether or not these inventoried units should be studied further for wilderness as WSAs. During the wilderness study process, public comments are only one of eight factors used to determine whether an area should be recommended as suitable for wilderness designation. Appendix R in the Draft RMP/EIS contains a complete description of the two planning criteria and six quality standards that are used in the study process.

WILDERNESS STUDY RECOMMENDATIONS

COMMENT	RESPONSE
7. In light of the preceding discussion, the decision on wilderness designation for these areas should be left to Congress, not made internally by the agency. As the DEIS makes clear, if Congress were to include these lands in the wilderness system, BLM would still manage them as natural areas. Thus, Congress not the agency should make the choice of short-term versus long-term protection. [Comment Index Number: 30]	7. Since only Congress can designate an area as wilderness, Congress does have the ultimate decision making authority for all BLM wilderness recommendations. Nonwilderness recommendations for areas studied under authority of Section 202 of FLPMA will be finalized by the State Director and will not be reported to Congress; however, Congress can at any time overturn that decision and designate an area as wilderness on their own initiative.
8. The first point concerning manageability of these areas is unsupported throughout the RMP/EIS and is, in fact, contradicted by several statements in the descriptions of each individual area. Although the Blind Horse Creek is the only WSA with a small private inholding, the RMP states that "the area stands as an independent study area due to strong public support and its ability to be managed in an unimpaired condition" (p. 75). (Emphasis is added). Meanwhile, there is no mention or explanation in the RMP/EIS of why the Chute Mountain and Deep Creek/Battle Creek WSAs could be considered difficult to manage. On the contrary, since both areas have no non-BLM inholdings and would be tack-ons to the Deep Creek Further Study Area, management should present no insurmountable difficulties for the managing agency. [Comment Index Number: 32]	8. The contradiction you note on page 75 of the Draft RMP/EIS refers to findings made during the intensive inventory phase of the wilderness review process. The intensive inventory was not intended to assess the manageability of roadless areas in any detail. Rather, the intensive inventory was intended to identify those roadless areas that possess the minimum necessary characteristics of wilderness including size, thereby qualifying for wilderness study. The study phase of the wilderness review process, as documented in the RMP/EIS, is the phase during which manageability is assessed in detail. In the case of the Blind Horse Creek area, the intensive inventory findings indicated that while the area was less than 5,000 acres in size, it was of sufficient size to make practicable its preservation and use in an unimpaired condition. The findings of the RMP/EIS however, indicate that other manageability considerations, irregular and poorly identifiable legal boundaries, a private inholding, and pre-FLPMA oil and gas leases coupled with the small size, make the Blind Horse Creek area unsuitable for wilderness designation. The statement referenced on page 75 of the Draft RMP/EIS has been changed to clarify its meaning (see Errata; see also response to Comment Number 5 in this section). The RMP/EIS notes that all three units along the RMF are entirely leased for oil and gas and have high potential for natural gas. The possibility of future impacts associated with exploration and development is considered significant. Impacts could be significant for both the short and long term since all existing leases are exempt from nonimpairment restraints and some possess valid existing rights. Furthermore, the areas have legal rather than topographic boundaries that are not readily apparent on the ground. As a consequence, the possibility of inadvertent trespass disturbances are more likely.
9. Wilderness Study Recommendations—In this alternative, all five of the areas currently under wilderness study would be recommended to Congress for wilderness designation. In the long term, 17,197 acres in the resource area would be maintained under wilderness values. *None of the five areas would be recommended to Congress for wilderness designation; three areas would be recommended as Outstanding Natural Areas and managed as wilderness. *Alt. A. It's my view, among the most important BLM Wilderness Study Areas in the Headwaters Resource Area are the units scattered along the magnificent Rocky Mountain Front especially those adjacent to the Bob Marshall Wilderness. Why save wilderness? It provides recreational opportunities, wildlife habitat. Wilderness protects watersheds and prevents floods. It helps maintain air quality and water quality. Lastly, future generations will have a stake in these lands if left in their natural settings—a wonderful heritage. [Comment Index Number: 62, 28, 61, 82, 83]	9. It is true that the three areas studied for wilderness along the RMF are highly natural in character and possess outstanding wildlife, recreational, scenic, air and watershed qualities. Since these lands were found not to be suitable for wilderness due to size, manageability, and oil and gas concerns (see response to Comment Number 3 in this section for rationale), the preferred alternative is to preserve these areas through designation as ONAs. Management under this designation will provide almost the same level of protection as wilderness during the short term (see also Management Guidelines by Alternative A vs. C, Management Unit 03, page 169 of the Draft RMP/EIS). Although long-term protection is not as certain due to the potential for management changes in future planning efforts, major modifications are not anticipated and will continue to be subject to public involvement.

TABLE 7-3 (cont.)

FOREST MANAGEMENT

COMMENT	RESPONSE
1. Management Unit 23. The portion of this management unit in the Golconda Creek area adjacent to our Elkhorn Wildlife Management Unit currently provides excellent elk spring-summer habitat. Although our monitoring activities are not complete, early indications are that this area is key to elk in the Elkhorns. Because of the importance of this area to elk, and to be compatible with our management of the Elkhorns, any timber harvest should be restricted to that which maintains or improves elk summer habitat. This would most likely change the high priority for forest management that the area currently has to something else. Specific road management guidelines for this area would be helpful. We support the efforts to improve range conditions in the Muskrat Allotment. [Comment Index Number: 2,13,10]	1. Management guidance for the Golconda Creek, Muskrat Creek and Nursery Creek portions of Management Unit 23 has been changed to be more consistent with Forest Service management on adjoining lands. The timber in this area has been removed from the regulated allowable cut base. Timber harvest will be permitted, however, where it would result in improved wildlife habitat (refer to Chapter 2 and Appendix A, Management Unit 36). Also see our response to Comment Number 1 under Motorized Vehicle Access.
2. We endorse the utilization of the guidelines from the Montana Cooperative Elk Logging Study in the formulation of forest activity. Page 24, Paragraph I of the RMP, Silvicultural Guidelines and Harvesting Techniques—emphasis should be placed on minimizing public access into areas that have significant security values for elk and other wildlife species. [Comment Index Number: 13]	2. The Draft RMP/EIS (page 29) emphasizes this and other guidelines from the Montana Cooperative Elk Logging Study.
3. We support the seasonal wildlife restrictions as indicated in Table 2-2. But, we do object to the exclusion of timber harvest, regarding consultation opportunities provided the Department of Fish, Wildlife and Parks. Timber harvest activities have the same potential for adverse impacts to wildlife as other cultural practices involving vegetative manipulation. [Comment Index Number: 13]	3. The exclusion of timber harvest activities from consultation has been modified (see page 29). The Montana Department of Fish, Wildlife, and Parks will be consulted for all timber sales over 250 mbf in size and for smaller sales in sensitive areas.
4. The DEIS doesn't really present enough informatin to analyze whether or not the proposed timber harvest level is reasonable. I couldn't find any economic data on the relative value and accessibility of timber on BLM lands, nor was there much of a discussion of how BLM forest management might impact wildlife. While the document made the generalization that timber harvest could improve wildlife habitat, it should be noted that on many BLM lands in the Headwaters area security and thermal cover are more of a limiting factor than forage. The number of miles of roads proposed to facilitate timber harvest is another concern that I didn't feel was adequately addressed; I didn't get a feeling of the BLM road management policy. [Comment Index Number: 20]	4. The allowable timber harvest level proposed in the Draft RMP/EIS has been adjusted slightly downward in response to public comments (see response to Comment Number 1 in this section). However, the proposed harvest level remains very close to the level projected under the no action alternative and reflects the absence of any new information indicating a need for significant adjustment of current management direction for the Headwaters Resource Area. It should be noted that the substantial increases in funding and personnel needed to offer the full harvest level for sale are not anticipated during the foreseeable future. The social and economic importance of timber within the resource area was discussed in Chapter 3 of the Draft RMP/EIS (p. 105). The implications of forest management activities for fish and wildlife habitat are discussed for each alternative in Chapter 4, Environmental Consequences. The importance of security and thermal cover is acknowledged and is reflected in the plan's adoption of guidelines from the Montana Cooperative Elk Logging Study and in management guidance identified for the wildlife and fisheries program (see p. 29 of Draft RMP/EIS). Guidance for the road and trail construction and maintenance program is provided on page 30 of the Draft; additional guidelines specific to roads needed for forest management are identified on page 24. Best Management Practices for road construction and maintenance are also identified in Appendix C. This information is considered adequate for resolution of the forest management issue.

FOREST MANAGEMENT

COMMENT	RESPONSE
5. Some of the forested areas south of Rogers Pass (Head of the South Fork of the Deerborn) is occupied by Grizzly Bear habitat. The increased timber harvest potential expressed in the Plan contemplates a much increased potential harvest over the historical harvest. Does this harvest goal take into account possible impact on Grizzly Bear habitat? Would increased harvest endanger the Grizzly which is protected under the Rare and Endangered Species Act? [Comment Index Number: 40, 20, 45]	5. Management Unit 5 in the Rogers Pass area is within occupied grizzly bear habitat. The Draft RMP/EIS acknowledges that impacts will occur in this area as a result of forest management activites; however, the analysis concludes that such impacts can be kept within acceptable limits. The guidance provided for management of threatened and endangered species habitat also requires that the Montana Department of Fish, Wildlife, and Parks and the U.S. Fish and Wildlife Service be consulted prior to implementing projects that may effect habitat for threatened and endangered species.
6. The plan does not describe the natural harvest levels anticipated under the plan, and there's really no way for us, with this information, to assess the probable impact on the timber industry. The only reference that I found in the plan to the possible cut level was a statement that the forest resources will be managed essentially as they are at the present time. [Comment Index Number: 23]	6. Future timber harvest levels in the Headwaters Resource Area will be largely dependent on BLM funding and staffing levels. The RMP establishes that annual harvest levels may increase to approximately 2.4 million board feet per year. However, in the short term, it is assumed that harvest levels will remain at or near current levels.
7. The document states that the plan is issue driven and it further states that one of the criteria used to evaluate the alternatives are social and economic impacts, and it appears from reviewing the plan that this appraisal of economic impacts may not have been entirely adequate. The recommendations that I have, the BLM should assess its role in meeting the raw material needs of the timber industry in the affected area, particularly relative to changes and potential changes from other landowners and other agencies. We're anticipating a decline in timber harvest levels from national forests as a result of their forest planning process. The twenty-six million board foot allowable cut in the BLM plan could totally support the needs of a medium-size sawmill and could go a long way toward alleviating some of the timber supply concerns in an area. [Comment Index Number: 23]	7. The economic analysis in the Draft RMP/EIS is, in effect, a "worst case" analysis in terms of impacts to the industry. This analysis assumes that funding levels for the forestry program are likely to remain below that needed to harvest the full allowable cut for the resource area. Based on this assumption, little change is expected in harvest levels, thus limiting the BLM's ability to affect regional timber supply. The twenty-six million board feet allowable cut figure in the Draft RMP/EIS is to be cut over a ten year period not in one year and, as such, would not be sufficient to support a medium-sized mill.
8. We feel that the plan should state, if possible, the timber sale targets by decades and display it in the plan. This data is needed to evaluate the social and economic impacts and it would give us a better ground to make a rational comment on the plan, and it would also improve and strengthen the plan. [Comment Index Number: 23]	8. Because of the limited timber base and previous lack of timber data in the Headwaters Resource Area, "timber sale targets" have not been established in the past. The RMP indicates that up to approximately 2.4 million board feet per year could be harvested in the Resource Area and, following plan approval, funding will be sought to make this full amount available for harvest. However, until a funding level can be established, "sale targets" would serve little purpose.
9. The DEIS offers no economic justification for the timber harvest leases proposed. Past experience on Eastern Montana National Forest lands has shown even moderate silvicultural management to be economically inefficient. NEPA requires costs and benefits to be displayed, yet nowhere in the DEIS are the economics of timber analyzed. Especially in the Rodgers Pass area which contains summer and fall grizzly bear habitat the scale tips in favor of wildlife and against timber harvesting. [Comment Index Number: 30,32]	9. The timber harvest levels proposed in this plan are based on two primary considerations: the production capability of the land and the impacts on other important resources and values that timber production would cause. It is BLM policy to make timber available for harvest on a multiple use, sustained-yield basis to the extent consistent with other resource management objectives. While intensive management of central Montana forest land may be "economically inefficient" compared to other regions, the demand for timber from public land in the Headwaters Resource Area apparently is equal to or greater than the supply. This is evidenced by the fact that all sales offered are purchased at or above minimum acceptable appraised stumpage values. Furthermore, total public benefits from proper management and use of federal timber exceed stumpage receipts. Such benefits include improved access, habitat improvement, and firewood availability.

TABLE 7-3 (cont.)

FOREST MANAGEMENT

COMMENT	RESPONSE
10. The RMP/EIS has recognized the general effects of the timber industry on widlife habitat (especially aquatic habitat) and on recreational resources (pp. 114, 118-120), yet the acres to be harvested are the same for the preferred, no action, and protection alternatives. Why not consider different levels and locations of timbering, and analyze the impacts on specific habitat and recreational resources? This would allow for trade-offs between these resouces to be analyzed, and the incremental "costs" of timbering in terms of wildlife and recreation to be identified. [Comment Index Number: 32]	10. The acreage available for harvest under the preferred alternative has been reduced primarily to achieve greater consistency with Forest Service management objectives for the Elkhorn Mountains. The range of forest management alternatives considered in the RMP/EIS includes different levels and locations of timber harvest, as well as an analysis of trade-offs, and is considered adequate for resolution of this issue.
11. All the alternatives propose a dramatic increase in timbering activities—from 1 million board feet per decade to over 26 million board feet—without explaining why such heavy emphasis is being placed on timbering. Why was this increase selected? [Comment Index Number: 32, 40]	11. The preferred alternative, which has been adjusted slightly downward, essentially reaffirms existing management direction and resource allocations. The disparity between current actual harvest levels and the resource area's allowable harvest is a function of low funding and staffing levels. Thus, the proposed RMP, if fully funded and implemented, would result in timber harvest levels slightly lower than the harvest levels that could have occurred under existing management direction. The analysis indicates that such an increase in the actual harvest can occur without unacceptable impacts to other resources.

LAND OWNERSHIP ADJUSTMENTS

1. The following comments are relative to areas adjacent to or in close proximity of the Gallatin NF: T. 5 N., R. 9 E., Section14: BLM lands occupies most of the W 1/2 of this section, and the National Forest owns the entire E 1/2. This area is in the Three Peaks grazing allotment and both Agencies have the same permittee . . . Our proposed management prescription for this area is for wildlife and livestock. BLM has identified this tract as Category II for disposal through sale, exchange or transfer. We believe that this tract should be eventually included in a transfer program to the National Forest and included within our management area17. Canyon Mountain Further Study Area—T. 3·S., R. 8 and 9 E.: Realizing that this area will require further study by BLM, our comment at this time is that these lands should be included in a transfer program since they are important in providing future access and would also be valuable as trading stock in consolidating public ownership in this area. Study Area Adjacent to National Forest in East Side of Yellowstone Valley: The majority of these lands is adjacent to National Forest ownership and have high wildlife and recreational values. We strongly support that these BLM lands be retained in public ownership and eventually be included in a transfer program. The remaining BLM lands in the immediate vicinity of National Forest System lands in both the disposal and further study categories are generally scattered parcels not adjacent to Forest boundaries. Our comment is that in many cases these tracts could be utilized as key trading stock to block up within the Forests. [Comment Index Number: 2]	1. As outlined in the Draft RMP/EIS, site-specific decisions regarding land ownership adjustments will be made based on consideration of several criteria, including the suitability of the land for management by another agency and the consistency of the decision with cooperative agreements and plans or policies of other agencies. The Forest Service will be consulted prior to making land ownership adjustment decisions for tracts adjacent to national forest lands. BLM-administered lands needed for the achievement of management goals on adjoining national forest lands will be retained in public ownership.

LAND OWNERSHIP ADJUSTMENT

COMMENT	RESPONSE
2. A search of our Mineral Industry Location System (MILS) indicates about 10% of the total number of mineral properties in the state of Montana lie within government land tentatively categorized for disposal in the Headwaters Resource Area. The entire resource area contains nearly 50% of the total number of mineral properties in the state that are entered in the MILS System. We are enclosing a MILS printout for your information. We have been informed by your staff that lands categorized for possible disposal which are mineral-in-character will be reclassified to the retention category. We hope this will aid you in your analysis. [Comment Index Number: 5]	2. Energy and mineral potential is one criterion to be used in making site-specific decisions regarding land ownership adjustments. The MILS information will be used when applying this criterion. All mineral-in-character lands will not necessarily be retained in public ownership. Other factors to be considered include the presence or absence of mining claims; the significance of mineralization; and, in the case of exchanges, the mineral character of the nonpublic lands being offered.
3. We recommend that all tracts of public land along the water routes of the Lewis and Clark National Historic Trail be retained for present or future public recreational use (access, rest stop sites, camping, etc.) by persons traveling these waterways. [Comment Index Number: 9]	3. Almost all tracts of public land in the vicinity of the Lewis and Clark National Historic Trail are in the retention category. Any tracts that are in the disposal category will still be evaluated on a site-specific basis before any disposal action takes place. Two of the criteria that will be used in making a site-specific disposal decision are whether the tract has any sites eligible for inclusion on the National Register of Historic Places and whether the tract has any sites with any statutorily authorized designation.
4. It is unclear how the boundary between Management Units 9 and 10 was drawn, particularly in the Horseshoe Hills and the Smith and Musselshell River drainages. Several large blocks of public lands with high wildlife values occur within Management Unit 10 in these areas but have been placed in the disposal category. Several of these areas are contiguous with Management Area 9, a retention area. These tracts should be carefully evaluated before disposal is considered. These lands should have a high priority for exchange, as opposed to sale, because they could be valuable for increasing public access in Management Unit 9 and along the Smith and Missouri Rivers. [Comment Index Number: 13, 29]	4. The Horseshoe Hills are in a disposal zone so they can be considered for future exchanges. The lack of public access and the problems in acquiring access limit the public value of the Horseshoe Hills. The wildlife values of the Horseshoe Hills are known, but the importance of the scattered public land there to wildlife on an overall habitat unit basis must still be determined. If the Horseshoe Hills could be traded for equal or better wildlife habitat that has public access, such an opportunity should and would be available for analysis under the preferred alternative. There will however be a site-specific analysis before any disposal actions occur in the Horseshoe Hills. As for the Musselshell River area, tracts with high wildlife values were placed in retention or further study categories unless public ownership was so negligible or scattered as to preclude effective management. Again, the primary use of these tracts is for exchange, not sale. There are no large blocks of public land in Management Units along the Smith River.
5. The "sodbusting" in Montana could jeopardize BLM's asset management program. We support the exchange of lands for isolated tracts where there is potential irrigable lands and in areas that make good land management sense. These lands are principally rangeland and should not be broken up unless they are classified as tillable land by the Soil Conservation Service. We suggest that a "statement of intent" and a soil conservation plan accompany any person's or company's offer to buy or exchange BLM land. [Comment Index Number: 13]	5. It is not the intent of the land adjustment program to promote speculative plowing of rangeland. The Montana State Director is currently developing policy that will define the BLM's position on the sodbusting issue.
6. In our view, public land managed by B.M, along the Rocky Mountain Front, should not be sold. It should be retained by the American people. It could, however, be used in trades with USFS to consolidate USFS holdings, for better wilderness management along the east mountain front. [Comment Index Number: 21, 53, 81]	6. All but 120 acres of public land along the Rocky Mountain Front has been placed in the retention category. Before any of the 120 acres is actually disposed of, a site-specific analysis will be conducted to determine whether any significant resource values exist that would prevent disposal.

TABLE 7-3 (cont.)

LAND OWNERSHIP ADJUSTMENT

COMMENT	RESPONSE
7. The plan, generally, in identifying zones for disposal of public lands, has overlooked significant habitat and aesthetic values frequently associated with lands in those zones. Many of these lands are characterized by native grasslands. Such habitat, particularly in the valleys of western and central Montana, is becoming scarce due to land development for farming and housing. Many species of plants and animals are becoming rarer as a result. Public land tracts in such areas are an important resource in maintaining those species. Because of the changes brought on by development, the aesthetic value of these tracts becomes significant. We feel that the plan should be revised to recognize the habitat and aesthetic values of valley and prairie tracts of public land. [Comment Index Number: 25]	7. As explained in the response to Comment Number 6, a site-specific analysis will take place before any specific disposal actions occur. This analysis will consider habitat and aesthetic values.
8. But secondly, they said that they did not want to see large amounts of federal lands sold, but they wanted to see it remain federal and that basically the only sales we would support would be very small and very isolated tracts or federal buildings, abandoned military sites, these types of things. But land that's basically used for grazing or for crops purposes, agricultural land, our organization would like to see it remain as public land. [Comment Index Number: 26, 79, 83, 85]	8. Lands with public values justifying retention in federal ownership will not be considered for sale. The occasional use of sale as a disposal method has a definite place in the BLM's land adjustment program since exchange is not always feasible. In some cases, sale is actually the preferred method of disposal. The primary example is in the case of inadvertant trepass. When it is discovered that a person's house or field is located on a piece of public land that is determined to be suitable for disposal, it would often place an unnecessary hardship on the private party if they had to wait for the BLM to exchange that particular parcel. They would not be able to clear their title, their mortgage could be jeopardized; etc. A second example would be when two or more adjacent landowners wish to acquire a tract but cannot agree on how to divide up the tract. In such a case, competitive bidding might be the only means of reaching a solution. Competitive bidding is not allowed under the exchange regulations but is part of the sale regulations. Specific procedures for determining the type of sale is contained in Appendix T of this document.
9. And there are several reasons for this and they may be well-founded, they may not. The first and foremost reason is the fear of the unknown of who the potential future owner would be. Would they be bidding, for instance, on a highest bid basis against real estate developers, second home site seekers, et cetera, who would not be bound, of course, to pay a price measured by the productivity of the land as the agriculturalist would? That's number one. That's the number one reason for opposing large scale sales. [Comment Index Number: 26, 78]	9. Bureauwide policy has been developed for determining the proper sale method. (See Appendix T.) One of the primary objectives of this guidance is to avoid significant disruptions to present users. To meet this objective, modified competitive bidding or direct sale procedures can be used. The statement that the preferred method of sale will be open competitive bidding has been removed from the final plan.
10. Finally, and in regard to the proposed sales and exchanges of some tracts of BLM land discussed on page 112, we believe that BLM has the authority and the obligation to transfer jurisdiction of some of its lands to other appropriate state and federal agencies rather than to put these lands up for sale. We believe that a need does exist to exchange land under BLM's stewardship which have low public values for lands which have higher public values. However, we do not believe that isolation, small size or difficult management in and of themselves render a parcel of low public value. In fact, these may be the very factors which make the property important for wildlife. In almost every case, exchange is preferable to sale of public lands. [Comment Index Number: 30, 20, 25, 28, 29, 31, 40, 45, 51, 55, 56, 61, 72, 77]	10. It is specifically required by the disposal criteria in FLPMA that a parcel must not be suitable for management by another federal agency if it is to be sold; therefore, this is one of the first considerations when evaluating a specific tract for disposal. This criteria was listed on page 21 of the Draft. Also, many tracts adjacent to national forest land were placed in the further study category for just this reason. State and local governments may acquire public land for recreational or other public purposes under authority of the Recreation and Public Purposes Act. These governments are notified in advance of proposed disposal actions. (Response continued on next page)

LAND OWNERSHIP ADJUSTMENT

COMMENT	RESPONSE
	Exchange will generally be the preferred method of disposal as it provides the most benefits and accomplishes the greatest gain toward an optimum final land ownership pattern. Sale will be used when there is a special need to sell the tracts as provided for in the State Director's Guidance or when the BLM has tried but been unable to dispose of the tracts by exchange and it has been determined that the tracts have no values that justify retention in public ownership. Again, before any parcel is disposed of, a tract-specific environmental analysis must be completed. Tracts with significant values will not be sold. They may be exchanged if the exchange would improve public values overall. Tracts with critical resource values will not be disposed of by any method.
11. We also reiterate our position that BLM allegations that some smaller and more isolated tracts should be disposed of because of their "management difficulties" are, in most instances, insufficient reason for loss of public lands, part of the legacy of every American citizen. Difficulty of management is, at best, a subjective consideration and poses the question of how well BLM is managing its own fiscal and manpower resources in carrying out its mandated functions. Many of these smaller and more isolated tracts are "islands" of excellent wildlife habitat and contain other valuable public features. [Comment Index Number: 31, 29, 72]	11. Difficulty of management is only one of several criteria for determining which public lands should be disposed of. Other disposal criteria are listed on page 20 of the Draft RMP/EIS. These criteria are also contained in the State Director's Guidance, which was developed with full public participation. A disposal decision would be based on a full review of all the criteria and not just on management difficulties.
12. The Federation also strongly protests two statements made prefaced by the phrase "Sale will be the preferred method of disposal when:" "It is required by national policy"—the current administration's policy obviously is predicated on an exploitation ethic and the public's ownership of the land and its rights to retain this land for its use be damned. Despite the Secretary's disavowal of the Assets Management Program at Kalispell in June, this has been the theme of the Assets Management Program and there is no indication that that theme has been changed. "Where disposal through exchange will cause unacceptable delays"—exchange of BLM lands historically has been a slow process, but deliberation before action better insures protection of the public legacy. We urge BLM to seek innovative approaches to land exchange such as land pooling, a method which should greatly speed up the entire procedure. [Comment Index Number: 31]	12. The first statement has been deleted from the Final RMP. The second statement was not meant to apply to the basic land adjustment program. It is referring to tract-specific cases, such as an inadvertent, unauthorized occupancy trespass where an expeditious transfer of title is desirable. The Montana BLM is currently using the exchange pooling concept in an attempt to improve the efficiency of the exchange process. Nevertheless, some cases will still need to be handled on an individual basis, outside of the complexities of a large scale exchange program. In such cases, sale is the preferred method.
13. The inventory of lands within the disposal category and the analysis of impacts of proposed land disposal are clearly inadequate to fulfill the requirements of FLPMA and NEPA. The RMP/EIS does not identify or describe the specific resource values of the land within the disposal category, nor does the document explain how selling any of these tracts meets the criteria for land disposal contained in FLPMA Sec. 203 (a)(1)(2)(3). Although land exchanges are likely to enhance both public and private resource values and land uses in many cases, while the potential benefits of land sales are much more limited, the RMP/EIS combines both forms of land tenure adjustment into one general category of "land disposal". Furthermore, the conditions under which sale will be the preferred method of disposal are so general and ambiguous that it appears nearly all the 25,637 acres in the disposal category could be sold, rather than exchanged. [Comment Index Number: 32, 13, 14, 25, 29]	13. As stated in the Draft RMP/EIS, public land in the Headwaters Resource Area was placed into three general land ownership adjustment categories; retention, disposal or further study. Before any land ownership adjustment actions actually take place, a site-specific analysis will be done that will describe the resource values of the tract involved. The analysis will be documented through land reports and decision records. Public notification will be provided and public hearings will be held if county commissioners or the Commissioner, State Department of Lands, determine a hearing to be necessary or if public input calls for hearings. Any interested parties will have opportunity for comment or protest on future actions. In addition, as stated in the Draft RMP/EIS, exchange will be the preferred method of disposal and public land will only be sold if it meets the criteria listed in Sec. 203 (a)(1)(2)(3) of FLPMA. In summary, this RMP/EIS sets forth the general procedures and policies for land ownership adjustments. Future site-specific decisions will be accomplished through the BLM's environmental assessment process with opportunities for full public involvement as described above.

TABLE 7-3 (cont.)

LAND OWNERSHIP ADJUSTMENT

COMMENT	RESPONSE
14. If, as Mr. Penfold's statement suggests, BLM is returning to the "routine program that the public has supported" in the past, the quantity of land designated for land disposal should be greatly reduced in the final RMP/EIS. [Comment Index Number: 32]	14. Under the preferred alternative, 25,637 acres were placed in the disposal zone. This represents less than 10% of the public land in the Headwaters Resource Area. The net loss of public land however, will be significantly less than 25,637 acres. There are several reasons for this: First, it is unlikely that purchasers or exchange proponents will be found for all tracts in the disposal zone (on page 112 of the Draft it states that it is unlikley that more than 50% of the tracts could actually be sold or exchanged for this reason); second, site-specific analyses are likely to show significant public values that would preclude disposal; and third, exchange will be the preferred method of disposal. All these factors will reduce the net loss of public land.
15. In reference to the above document, we support the BLM's alternative to use land exchange as the primary method of land adjustment. We are, however, disappointed that the Plan did not identify the lands Burlington Northern has offered to dispose of in the Headwaters area. (The list was presented to you in October of 1982.) By identifying these parcels, the public has an opportunity to comment on the proposal. [Comment Index Number: 34]	15. The Headwaters RMP was designed to deal with the land ownership adjustment issue on the broad level of categorizing the land into three general categories. It was felt that individual tracts should be dealt with on a site-specific basis after the RMP was completed. For this reason, the RMP did not identify the tracts that Burlington Northern has offered for disposal. These tracts will be evaluated in the future and there will be opportunities for public involvement at that time.
16. We also request that the Plan emphasize the benefits of consolidating land ownership by showing how public and private costs can be reduced if lands are blocked up. [Comment Index Number: 34]	16. This discussion has been added to the Impacts on Social and Economic Conditions section of the discussion of Alternative A in the Environmental Consequences chapter of this document.
17. It has come to my attention that the following described lands located on Duck Creek in the Townsend MT district have been included in the isolated tract designation by the present administration and are therefore possibly slated for sale: Township 8 North, Range 3 East Section 5: Lots 14, 15 and 16 Section 6: Lots 11, 12 and 13 Township 9 North, Range 3 East Section 32: Lots 1 and 2 These lands were, by your agency, classified for public recreational purposes as recent as May 1973. This generated considerable construction and improvements on cabins by persons owning or being able to purchase cabin sites on property adjacent to the above mentioned BLM lands, thereby greatly increasing the tax base of the area. It is therefore requested that the BLM land in question be retained for public recreational purposes as it is currently designated. [Comment Index Number: 41, 43, 44, 47, 48, 57, 58, 59, 60, 66, 67, 68, 69, 70, 86, 87]	17. The area is in a retention zone. Due to valuable riparian habitat, the tracts are likely to be retained.
18. As present and impending litigation demonstrates, United States policy requires that public lands be held in perpetuity and managed exclusively under the stewardship of classified Civil Service employees. All public lands must be retained; no such lands may therefore be considered for sale or subject to any other method of disposal. As I have previously commented in rejecting proposed "disposal categories" my rationale is based on federal law expressing Congressional intent. [Comment Index Number: 42]	18. Sections 203 and 206 of the Federal Land Policy and Management Act of 1976 provide statutory authority for the BLM to dispose of tracts of public land through either sale or exchange. The criteria for the sale of public land are listed on page 21 of the Draft RMP and were taken directly out of FLPMA.

TABLE 7-3 (cont.)

LAND OWNERSHIP ADJUSTMENT

COMMENT	RESPONSE
19. Public land in the Scratchgravel Hills should be made available for disposal via direct sale to adjoining landowners. This is surplus land as the BLM is not using this land for any purpose including no mining, so the land should be considered obsolete to BLM. [Comment Index Number: 52]	19. Sale or exchange of specific tracts is allowed in retention zones. Our general management goal however, is to retain public lands in the Scratchgravel Hills. Many of these parcels have high value for wildlife habitat, open-space recreation,and scenic value. Most large tracts have legal access. Those small tracts without significant public values can be considered for sale or exchange, but the priority for sales and exchanges will be in the disposal zones. In addition, the Scratchgravel Hills have strong public support for retention in public ownershp including support by the Scratchgravel Hills Comprehensive Management Plan prepared by the volunteer Scratchgravel Planning Committee. For these reasons, the BLM feels the Scratchgravel Hills should remain in the retention category.
20. I fail to see enough BLM land recommended for disposal or trade to take the time to bother with. If all the land of this category were disposed of at fair market value, the cost of the study and sale would not be realized. [Comment Index Number: 54]	20. The primary purpose of the land adjustment program is to provide a more manageable land ownership pattern, not to bring in revenues. Over the long term however, a more manageable land base is expected to reduce administrative costs.
21. Tracts in T3S, R9E & R10E change from "disposal" and "further study" to "retention". These tracts have significant wildlife and scenic values. [Comment Index Number: 65]	21. The retention zone has been enlarged to include the tracts along the Yellowstone River. Other Wineglass Mountain tracts will remain in further study because more information is needed before these tracts can be accurately reclassified.
22. Land ownership adjustment categories should be changed in T8N R3W and T8N R4W from retention to disposal. Also T9N R3W should be classified for disposal. These BLM lands could be exchanged or sold and consolidated. These small, sometimes landlocked parcels could be blocked up to improve management by both BLM and private ownership. [Comment Index Number: 71]	22. Sale or exchange of specific tracts is allowed in retention zones. Our general management goal, however, is to retain public lands in the three townships listed above. Many of these parcels have high value for wildlife habitat, open-space recreation, and scenic values. Most large tracts have legal access. Those smaller tracts without significant public values could be considered for sale or exchange, but tracts in disposal zones will generally receive priority for disposal. These townships should remain in the retention category.
23. T8N R9 & 10E "retain" change to retention. Reason: access to the Musselshell. T3S R9 & 10E change to "retention." [Reason:] endangered species—peregrine falcon formerly used this site and have been recorded lately. [Comment Index Number: 77, 75]	23. Tracts with value for river access will be retained, even though they lie within a disposal zone. There are only a few scattered tracts in the area of the Musselshell River and, therefore, do not justify being identified in a retention zone. Endangered species' habitat will be retained no matter what category it is in. However, the retention zone has been changed to include known peregrine sites along Yellowstone River. Also, see the response to Comment Number 2.
24. Public Land in T13N R3E should be changed from disposal to retention because of high public values and importance to livestock operations. [Comment Index Number: 88]	24. This area has very few tracts of public land and legal public access to these tracts is limited. For these reasons, the area has been identified for disposal. However, the RMP provides for individual tracts within disposal zones to be retained if site-specific analysis reveals significant public values.
25. My only comments deal with a very deep concern for the hundreds of small miners, prospectors, widows of prospectors, or beneficiaries of miners/prospectors, & leasers of mineral claims. These people can be badly hurt mentally & Spirtually if their Forest Service and B.L.M would sell them out. [Comment Index Number: 89]	25. Current policy does not allow sale of surface rights where mining claims are located. If the policy changes, previously existing claims would be considered valid existing rights. Only future mineral entry would be precluded.

TABLE 7-3 (cont.)

MINERAL EXPLORATION AND DEVELOPMENT

COMMENT	RESPONSE
1. The MEC generally endorses Alternative A, the preferred alternative, because it provides a generally balanced approach to the identified issues. However, on the issue of withdrawals, Alternative D is preferable. Land withdrawal is a very rigid form of land use management, and in the case of withdrawal to prevent anticipated damage caused by exploration activities, the withdrawal is not necessary. Exploration by modern techniques can be carried out with minimal impact and most of that can be reduced by reclamation. Withdrawal should be used as a management tool as infrequently as possible. [Comment Index Number: 24]	1. Current policy is to rely on existing federal and state regulations for the regulation of mining activity rather than rely on withdrawals. Neither Alternative A nor Alternative D propose any new withdrawals. Under either alternative, the acreage withdrawn from mineral entry is expected to decrease because of the Withdrawal Review program. In short, Alternatives A and D are identical with respect to mineral withdrawals.
2. The BLM asserts that the Preferred Alternative would result in no change from current management direction with respect to mineral exploration and development, as all public land would remain available for entry, unless previously withdrawn. In addition, some existing withdrawals may be revoked in the future as the current withdrawal review continues. However, site-specific stipulations applied to activities within specially designated areas may make exploration impractical if not impossible. [Comment Index Number: 35]	2. The BLM does not attach site-specific stipulations on locatable mineral activities within specially designated areas such as outstanding natural areas. Locatable mineral exploration and development are regulated through the 43 CFR 3809 Surface Management Regulations, and activities are regulated only to prevent unnecessary and undue degradation.
3. Due to the large amount of fractured rock and the large number of faults running through the Scratchgravel Hills area, the chance of groundwater contamination is very high if an accident or mishandling of the cyanide was to occur. Therefore, I would recommend that Alternatives "A", "B" and "D" be amended to withdraw the Scratchgravel Hills from mining or at least create a buffer zone between the residential areas and the mining. Also, that no onsite processing of the ores be allowed anywhere in the Scratchgravel Hills. [Comment Index Number: 49, 37, 63]	3. Current policy is to rely on existing federal and state regulations for the regulation of mining activity rather than rely on withdrawals. As mentioned in the plan, a withdrawal would not solve the potential problem of mining claims with valid existing rights and mining on patented mining claims. The Bureau of Land Management has no means of specifying either the location or the methodology of mineral recovery and processing. In addition, since the only current cyanide leaching operation is located in a different groundwater recharge zone from nearby rural subdivisions, the potential for the contamination of groundwater used for domestic purposes is significantly reduced.

MOTORCYCLE USE AREAS

1. Care should be taken to avoid conflict between [Continental Divide] Trail users and motorcycle users in the Marysville area. [Comment Index Number: 19]	1. The possible impacts on Continental Divide trail users will be one factor in evaluating any application for a motorcycle race event in the Marysville area. In addition, as shown on page 22 of the Draft RMP/EIS, Marysville has been identified as a high priority for possible restrictions on motorized vehicles.
2. Why should public land be used for motorcycle racing? I feel that they should do as we (M4X4A) do. Rent some PRIVATE land for such types of activity. It gives the people who want to see it a chance to do so, and those who don't an don't care a chance not to. [Comment Index Number: 27]	2. Public Law 94-579, the Federal Land Policy and Management Act of 1976 (FLPMA) states that "... the public lands be managed in a manner ... that will provide for outdoor recreation ... (Sec. 102 (a)(8)) and that "The Secretary shall manage the public lands under principles of multiple use ... (Sec. 302 (a)). Multiple use, by definition, means "... the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people ..." (Sec. 103 (c)). Motorcycle racing as well as four-wheel drive events are forms of multiple use and outdoor recreation, and therefore, can legally be accommodated on public lands provided that precautions are taken to prevent unnecessary and undue degradation.

MOTORCYCLE USE AREAS

COMMENT	RESPONSE
3. Allowing motorcycle events in the Black Sage area is inconsistent with the wilderness values present there. See p. 115. Prohibition should be considered to mitigate the noise, erosion and concentration of people which these events cause. [Comment Index Number: 30]	3. It is not felt that the wilderness values in the Black Sage area are sufficient to justify closing it to motorcycle race events. The possible impacts of such events were considered in the decision to recommend the Black Sage area as nonsuitable for wilderness. However, the current demand for motorcycle use areas is relatively low, and it is unlikely that there will be a high demand for the Black Sage area as a motorcycle use area.
4. No organized motorcycle events should be allowed in the Scratchgravel Hills area. The land, vegetation and wildlife in the area are too fragile for a motorcycle event and the increased year round use of the area by motorcylists that would result. Motorcycle races are also incompatable with many of the other recreational uses of the area such as horseback riding and are incompatable with the general rural residential atmosphere of the surrounding areas. Alternatives "B" and "D" should be amended to exclude organized events. [Comment Index Number: 49, 14, 63]	4. Under the preferred alternative, Alternative A, the Scratchgravel Hills would be closed to motorcycle race events.

MOTORIZED VEHICLE ACCESS

1. Management Unit 9. The deer-elk winter range values are very high in the portions of this unit that are adjacent to our Elkhorn Wildlife Management Unit and [we] endorse the preferred alternative that allows for restrictions on motorized access. These BLM lands are important to the total wildlife habitat in the Elkhorn area and hope that more specific road management guidelines can be developed. We will supply all resource information we have and work with BLM land managers in developing these guidelines. We support the effort to improve conditions in the Devils Fence Allotment. [Comment Index Number: 2]	1. Management Unit 9 has been identified as a priority area for motorized vehicle access restrictions. Specific management guidelines affecting motorized vehicle access will be developed during travel planning and will be incorporated into other BLM activity plans. The BLM intends to work closely with the Forest Service to develop a joint travel plan for public lands that adjoin national forest lands.
2. .As a member of an organized 4-Wheel Drive Club I feel no land should be closed to MOTORIZED VEHICLE ACCESS. I also do see reasoning behind Closing it to seasonal demands for the area. I am not familiar with the Scratchgravel Hills, Hilger Hills or Limestone Hills, but surely they can be controled as many areas are by seasonal closures. Isn't that what travel plans are for? [Comment Index Number: 27]	2. Under FLPMA, Executive Order 11644, and Executive Order 11989, controls on motorized use of public lands are authorized. Generally, these controls minimize damage to soil, watershed, vegetation, or other resources of the public land and conflicts with other uses. Seasonal controls will meet these requirements in many cases. However, in other situations, specific needs can only be met with more restrictive motor vehicle closures. As detailed for the preferred alternative on page 39 of the Draft, none of the three referenced areas are proposed for closure. Scratchgravel Hills and Limestone Hills would be identified for motor vehicle restrictions. Hilger Hills would remain open to motorized vehicles and would also remain available for further consideration for organized motorcycle events.
3. The proposed plan calls for 219,000 acres (where erosion and land use conflicts presumably exist) to be "prioritized for restrictions" (p. 40). However, no specific restrictions are proposed, no clear explanation of why these areas have been chosen or where they are located is given, and there is inadequate analysis of the environmental impacts on the different acreages proposed for restrictions under each alternative (see Environmental Impacts section). [Comment Index Number: 32]	3. Pages 22 and 39 of the Draft RMP identify specific areas that will receive priority for motorized vehicle restrictions. These areas include the Scratchgravel Hills, the Limestone Hills, Blind Horse Creek, Ear Mountain, Chute Mountain, Deep Creek/Battle Creek, Sleeping Giant, Marysville, and the Jefferson, Missouri and Smith River corridors. As explained on page 22 of the Draft RMP, more detailed travel planning will take place after the RMP is completed. This planning effort will identify site-specific restrictions and environmental impacts. Most of the areas listed above were identified in previous plans as areas that needed restrictions. Some areas were identified on the basis of public comment during the scoping process.

TABLE 7-3 (cont.)

MOTORIZED VEHICLE ACCESS

COMMENT	RESPONSE
4. Motorized vehicle use in the Scratchgravel Hills area should be restricted to designated existing roads in the area. The environment in the area is too fragile for off-road vehicle use. There are numerous examples in the hills where off-road vehicles have traversed an area only once and several years later the tracks are still evident. These tracts tend to channel rainwater which results in even greater erosion and destruction of the natural vegetation. [Comment Index Number: 49, 63, 40]	4. Under the Preferred Alternative, the Scratchgravel Hills are identified as a high priority area for motorized vehicle restrictions. Upon completion of the RMP, more detailed travel planning will take place to determine what specific restrictions should be placed on motorized vehicle use not only in the Scratchgravel Hills but elsewhere in the Resource Area as well.

UTILITY AND TRANSPORTATION CORRIDORS

No comments were received on this issue.	

COAL LEASING

1. Review of the RMP/EIS indicates several Minuteman launch control and launch facilities within the Headwaters Resource Area. The hardened intersite communications cable system also passes through areas identified as private surface ownership and public land declared acceptable for further consideration for coal development. The Malmstrom AFB Cable Affairs Officer has discussed the hardened intersite communications cable routing with your Great Falls field office. It is the Air Force understanding that the Great Falls Field Office plans to annotate the location of the cable on their working drawings and coordinate with the Cable Affairs Officer whenever an oil/gas lease application is received which could impact on the hardened intersite communications system or a launch control/launch facility. [Comment Index Number: 3]	1. Language has been added to the analysis of Criterion No. 2 in Appendix H that provides for future identification of areas unsuitable for surface occupancy and/or unsuitable for leasing in order to provide necessary protection for the hardened intersite communications cable system. Oil and gas lease stipulations required for the mitigation or avoidance of impacts on special land uses, including the hardened intersite communications cable system, are developed through completion of the realty portion of Supplemental Sheet 2, Butte District Oil and Gas Checklist, found in Appendix B.
2. We have reviewed the application of the unsuitability criteria on the federal mineral estate within the Great Falls Coal Field. We believe that the rationale used in the draft document for application of several or the unsuitability criteria are not consistent with regulations pertaining to the management of federally-owned coal (43 CFR 3400) and may result in unnecessary conflict or delays if leasing of these coal reserves is initiated in the future. Analysis for Criterion No. 11 in Appendix H documents the limited data available on golden and bald eagle nest sites in the planning area. A lease stipulation requiring additional raptor survey is recommended. In our opinion, issuing a lease with a stipulation requiring additional inventory does not meet the cited regulations. Adequate inventory and application of Unsuitability Criteria No. 11 prior to issuance of the lease is required. Rationale expressed in the draft planning document for Unsuitability Criteria No. 13 and No. 14 suggesting inventories of cliff sites at the time of leasing for criteria No. 13 and leases with stipulations requiring inventorities of high priority habitat for migratory birds of high Federal interest for Criteria No. 14 also do not appear to be consistent with the coal planning regulations. These inventories and subsequent application of unsuitability criteria are necessary and are required prior to issuance of Federal coal leases. [Comment Index Number: 6]	2. Additional information and inventory data has not been collected for the following reasons: The coal area is not in a coal production region and no tracts have been delineated. High and moderate value coal has not been identified; the land is classified as prospectively valuable for coal. Strong interest in developing the coal has not been indicated. Funding and staffing constraints limit the amount of inventory work the BLM is able to do. For these reasons, although some delay will result, the logical time to gather additional inventory data would be at the lease application time or when someone is interested in making an application. Even if the inventories are delayed until this time, they will be completed, along with the final application of the unsuitability criteria, before a lease is actually issued. This approach complies with regulations (see 43 CFR 3461.3-1(6)(1)) that allow for the final application of unsuitability criteria after an RMP is done as long as the application of criteria takes place prior to lease issuance. Appendix H has been modified to clarify the fact that all unsuitability criteria will be applied prior to lease issuance.

COAL LEASING

COMMENT	RESPONSE
3. It seems illogical to lease the Great Falls coal field at a time when the demand is so low. It seems wise to take more time to study the impacts of leasing this coal before moving forward. Leasing this coal, along with possible development, has the potential to seriously affect the Smith River. [Comment Index Number: 20]	3. The preferred alternative does not propose leasing of the Great Falls coal field at this time. Rather our preferred alternative proposes that all federal coal would be available for further consideration for coal leasing. There is little interest in the Great Falls coal field and the BLM does not anticipate any actual leasing in the near future.
4. The potential for viable production and the effects of coal production in the Great Falls Coal Field are spread throughout the DEIS. These factors should be consolidated and coal leasing reconsidered in that light. The factors are: 1. Removal of the coal may prove to be costly and difficult—page 60. 2. Due to high sulpher and ash content the quality of the coal is poor—page 90. 3. The production potential of the area is questionable—page 60. 4. Production will adversely affect air quality and brings with it the potential of acid rain the Great Falls areas—Page 109. 5. Production may cause cyanide leaks in Helena Valley resources which are used by some homeowners for domestic water—page 110. Consideration of these factors makes justification of coal leasing in the Great Falls Field difficult. [Comment Index Number: 30]	4. As stated on page 109 of the Draft RMP/EIS it is not coal production that brings with it a potential for acid rain, but rather the possible construction of a coal fired power plant (such as Montana Power Company's Salem Project). Possible cyanide contamination is not related to the Great Falls coal field. It could, however, result from gold mining and leach pad operations in the Helena Valley and Scratchgravel Hills. This has been clarified in the RMP (See also response to Comment Number 3.)
5. Further, it is impossible to determine from the DEIS whether the no surface occupancy stipulations proposed for the Great Falls Coal Field and mentioned in Criteria No. 15 of Appendix H create unusable islands of land. To provide viable habitat for the sharp-tailed grouse, elk, antelope, and mule deer proper buffers and corridors must also be provided for. [Comment Index Number: 30]	5. The Great Falls Coal Field map located in the back of the Draft RMP/EIS should help your evaluation of the coal field impacts to wildlife habitat. In the opinion of the BLM specialists, the 1,260 acres of No Surface Occupancy, designated because of wildlife criteria (Unsuitability Criterion 15), would not create unusable islands of wildlife habitat. Exclusions for sharp-tailed grouse dancing grounds (twenty acres each) may be an exception. This grouse species may experience severe short-term impacts if the coal resource is mined. The important thing to remember, however, is that the Draft RMP/EIS only determined that the area under consideration is acceptable for potential coal development, pending further study (Appendix H). The BLM has very little wildlife inventory data for the coal field area because of limited public surface ownership in the area. Future development of the coal field would necessitate wildlife inventories; these inventories could add considerable acreage to the No Surface Occupancy area already delineated. Application of unsuitability criteria 9, 10, 11, 12, 13, 14, and additional application of criterion 15 would occur prior to lease issuance. In addition because of the scattered nature of the public surface and subsurface ownership, it might not be possible to provide proper buffer zones for wildlife if the adjacent private coal were mined.

TABLE 7-3 (cont.)

COAL LEASING

COMMENT	RESPONSES
6. Similarly, although underground coal mining could seriously disrupt ground-water (p. 110), all federal coal within the Great Falls Coal Field is available for further consideration for coal leasing in the preferred plan, which relies on future, unspecified lease stipulations and mine plan review to prevent ground-water resource problems (p. 53). Regulations themselves are not a mitigating measure, and no analysis supports the conclusion that BLM need do nothing but rely on existing regulations. [Comment Index Number: 32]	6. Since there are no mining proposals or tracts identified, effects on groundwater would be hard to analyze. Prior to leasing, an EA or EIS would be required. At the time that a mining proposal has been identified, the groundwater question could be analyzed in greater detail. When a mining plan is reviewed the opportunity for additional mitigating measures are available, and if necessary, stipulations to prevent damage to groundwater would be written. State or federal review of the mining plan is required, and the State of Montana prepares an EIS. Public hearings are held prior to approval of a mining plan.
7. In addition it would appear the RMP/EIS does not adequately present nor answer the coal leasing issue presented on p. 12; that is, what portion of the Great Falls Coal Field should be made available for further leasing? No alternatives of leasing any portion of the coal field were analyzed—only to lease all the field or none. [Comment Index Number: 32]	7. It is BLM policy to make coal available for leasing unless analysis reveals compelling reasons not to lease coal. Current information suggests that the coal in the Great Falls coal field is highly irregular in occurrence. There is little industry interest in the Great Falls coal field and the BLM does not anticipate any actual leasing in the near future. It is important to realize that the treatment of the Great Falls coal field serves only as a preliminary screening. The preferred alternative proposes that all federal coal be available for further consideration for leasing. It does not propose any actual leasing. See also the response to Comment Number 3.
8. The analysis of No. 3 states subsidence and tension cracks in roads can be repaired so that road conditions are equal to or better than those existing. We know of no evidence supporting this in the underground coal fields of Colorado and Utah; in fact, experience indicates the opposite is true. [Comment Index Number: 32]	8. The actual potential for subsidence caused by underground mining cannot be determined in the absence of a specific mining plan or proposal. However, the depth of the overburden (200 to 300 feet) suggests that subsidence generally can be avoided through proper design of the mining operations.
9. Criterion No. 16 states 100-year flood plains "shall be considered unsuitable unless" it is determined substantial damage is not threatened by mining; however, the analysis improperly reverses the criterion, leaving three floodplains as suitable for mining until proven unsuitable. [Comment Index Number: 32]	9. You are correct in that the BLM analysis reversed the requirement in the regulation. It should be stated to the effect that these areas are unsuitable unless it can be established that surface mining or facilities do not pose a threat to life or property. Given the underground mining exemption (43 CFR 3461.2), this will not prevent leasing of these areas for underground mining. It would prevent placement of surface facilities in the floodplain. The analysis in Appendix H has been revised to reflect this fact and the appropriate changes have been incorporated into the text.

SPECIAL DESIGNATIONS

1. The Headwaters Resource Area contains one designated and 12 potential National Landmarks. . . . Further planning for the Headwaters Resource Area should consider these official and potential designations and avoid impacts that could adversely affect the ecological and geological features of these areas. [Comment Index Number: 8]	1. Of the designated and potential National Natural Landmarks, there is no BLM-administered surface or subsurface on six: Crown Butte; Granite Peak Glaciers; Crazy Peak-Big Timber Creek; Red Mountain; Green Timber Basin-Beaver Creek; and the Gates of the Mountains. The BLM does have administrative responsibilities for surface and/or subsurface resources on at least portions of the following sites: Freezeout Lake, Pine Butte Swamp, Sun River Game Range, Sluice Boxes State Monument, Middle Fork Canyon, Lewis and Clark Caverns, and Dry Hollow. The eligibility of these sites will be considered when making activity decisions regarding the specific areas.

SPECIAL DESIGNATIONS

COMMENT	RESPONSE
2. I found the discussion of the ONA concept one of the most disappointing aspects of the Headwaters plan; the concept was discussed as if it were readily understood by all, an administrative management tool commonly used. To the best of my knowledge it's not, and as a person who commonly follows these issues, I must confess to not fully understanding what can and can't be done in an ONA, nor how quickly one can be changed or undone. Certainly all of these questions should have been answered in full in the DEIS; if they were, I couldn't find them. [Comment Index Number: 20, 40]	2. The BLM has authority to make several types of special designations. These special designations are administrative designations that must be approved or rescinded by the Director of the BLM. They are defined in 43 CFR 2070. An Outstanding Natural Area is one of these designations. The purposes of Outstanding Natural Areas are defined in 43 CFR 2070. This regulation states that ONAs are "areas of outstanding scenic splendor, natural wonder, or scientific importance that merit special attention and care in management to insure their preservation in their natural condition. These usually are relatively undisturbed, representative of rare botanical, geological, or zoological characteristics of principal interest for scientific and research purposes." The general management policy for ONAs is contained in 43 CFR 8352 which says, in part, that "no person shall use, occupy, construct, or maintain authorized facilities in a manner that unnecessarily detracts from the outstanding natural features of the area." As can be seen, the regulatory direction, although not detailed, is clear in its intent to preserve the natural features of an area. The Headwaters RMP/EIS has provided additional management direction that is intended to preserve the natural character of these areas (see Chapter 2 and Management Units 3 and 4 in Appendix A).
3. An ONA classification based on speculative energy values seems like flimsy protection for areas with such proven wilderness and wildlife values. [Comment Index Number: 20]	3. Nonwilderness recommendations were made for these three areas based on the BLM's Wilderness Study Policy. Energy concerns were only one of many factors. ONA designations were recommended as a follow-up in order to protect the high natural and wildlife characteristics of the three areas. Over the short term the protection provided by ONA designation will be similar to that provided by wilderness designation.
4. The designation of these areas as outstanding natural areas and management essentially as wilderness will affect timber harvest opportunities to a small degree, but—I mean on a small acreage, the forest land. However, the impact on the potential yield appears to be minimal. [Comment Index Number: 23]	4. Since there is no commercial forest land in the three areas recommended for ONA designation, there will be no impact on timber harvesting.
5. Although the ACEC recommendation for Sleeping Giant is definitely a step in the right direction the MWA strongly recommends wilderness management for this unique wild area. I personally use the area extensively for day hikes and have never failed to see wildlife there ranging from antelope to mountain goats. A Sleeping Giant Wilderness would complement beautifully the adjoining Gates of the Mountains Wilderness as well as the BLM's commitment to resource protection along the Missouri River from its headwaters to the Wild & Scenic Missouri all the way [to] Fort Peck. The Montana conservation community has based much of its support for the recent 3-way Sleeping Giant land exchange on the hope that the area would eventually receive wilderness classificaiton. With this thought in mind, we urge you to recommend wilderness for Sleeping Giant even though the area has technically been dropped from section 603 FLPMA wilderness consideration. Of course, we feel strongly that the dropping of this potential WSA was based on a legally-flawed interpretation of FLPMA and other applicable laws. [Comment Index Number: 28]	5. Instruction Memorandums WO-83-188 and MT-83-160 mandated the deletion of all split-estate lands from further wilderness study whether under Section 603 or 202 of FLPMA. When the BLM acquired lands in the recent Sleeping Giant exchange, the agency did not obtain subsurface rights to 2,207 acres. Subtracting these areas created 1,553 acres of noncontiguous land. As a result the WSA lost 3,760 acres and was reduced to only 2,371 acres. This is far less than the 5,000 acres needed for wilderness consideration and the area was dropped from further study. Over the short term ACEC designation will provide similar protection as wilderness designation.

TABLE 7-3 (cont.)

SPECIAL DESIGNATIONS

COMMENT	RESPONSES
6. While none of the five areas under consideration would be recommended for wilderness designation, we are concerned that four areas along the Rocky Mountain Front—Blind Horse Creek, Ear Mountain, Chute Mountain, Deep Creek/Battle Creek—are recommended for Outstanding Natural Area designation. Statements in the plan such as the following illustrate the reason for this concern: "Special designation will permit essentially the same level of protection for scenic, recreational, and other values that wilderness designation would provide." Such stringent protection would obviously constrain energy development. The areas recommended for ONA status are believed to have very high oil and gas potential, and should not be effectively closed to development. [Comment Index Number: 35]	6. While it is true that ONA designations would place severe restrictions on oil and gas development, approximately 72% of the BLM-administered land on the Rocky Mountain Front is still available for oil and gas development. Of the 28% that is considered unavailable, only 8% or 9,960 acres, is unavailable as a direct result of ONA designations. The RMP interdisciplinary team believes that this represents a reasonable balance between the many outstanding and competing resource values of the Rocky Mountain Front.
7. Nowhere does the RMP/EIS adequately explain why the WSAs were only considered for ONA designation, and not for ACEC status. [Comment Index Number: 32]	7. A discussion of why ACEC designation for the areas on the Rocky Mountain Front was not presented in detail can be found on page 18 of the Draft RMP/EIS. In brief, the reason is that ACEC designation and ONA designation would result in very similar management of the areas. It was felt that an ONA designation would be more appropriate since the resources of particular interest are of national significance and an ONA designation requires approval of the Director of the BLM.
8. We are pleased that the BLM recognizes the special values of these three areas, as signified by the proposed Outstanding Natural Area designation. But at the same time we recognize this is only administrative protection, and it lacks the permanence and force of law a Congressional designation would have. We're particularly concerned about the potential impacts of oil and gas exploration and development, and the ONA designation gives us little security from that threat. [Comment Index Number: 39, 28]	8. Although the ONA designation for the three areas does not provide the same long-term protection guarantee as wilderness would, it does provide comparable short-term preservation (ten years). If wilderness is an issue in the next plan and the adjacent national forest land is designated or recommended for wilderness, then the option would be available to reevaluate these areas for wilderness. Because of the valid existing rights in the form of pre-FLPMA oil and gas leases, neither wilderness designation nor ONA designation can guarantee absolute preservation. No Leasing or No Surface Occupancy stipulations will be put on new leases, however, to protect natural values.

SOIL, WATER, AND AIR RESOURCES

1. Although we agree with the EIS that air quality impacts from your proposed alternative would generally be minimal, we would point out that production of "sour" gas found in this area might well require a sweetening plant. Such facilities would have to be carefully scrutinized, especally in light of the designation of the Bob Marshall Wilderness Area as a Class I airshed. We believe this should be mentioned in the final EIS. [Comment Index Number: 11]	1. A statement to this effect has been added to the Final RMP/EIS.
2. Appendix C states that the Best Management Practices were selected to avoid rather than mitigate impacts to water quality and soils. The prevention of adverse impacts is clearly desirable, but, mitigative measures should also be developed in case adverse impacts do occur. [Comment Index Number: 13]	2. The mitigating measures are usually developed on a case-by-case basis, as called for by potential adverse impacts of an action. Such mitigating measures will therefore be developed for individual actions through the BLM's normal environmental assessment process.

SPECIAL DESIGNATIONS

COMMENT	RESPONSE
3. On pages 48-50, Table 2-16, the impacts to soil and water resources range from minor deterioration to moderate-high improvement. However, riparian, waterfowl and fisheries habitat range from a major decrease to minor increase. How can soil and water resources experience improvements and habitats deteriorate? [Comment Index Number: 13]	3. Table 2-16 may not have been as clear as it should have been. The existing condition of fish and wildlife habitat presented in Table 2-16 (pages 49-50) consists of acres and miles in unsatisfactory condition. So, when watershed condition improves, there may be a decrease in unsatisfactory riparian habitat; that is, the habitat will improve. The table was set up in this way to point out how much habitat was in unsatisfactory condition and what the RMP would do about it.
4. Grazing management, oil and gas development and coal mining are concerns for water quality impacts. Streambank protection should be considered when evaluating grazing allotments. Oil and gas development should consider stipulations for wastewater and sludge disposal in areas where surface and ground water will not be polluted (reference Montana Surface Water Quality Standards—16.20.601 and Montana Groundwater Standards—16.20.1003). [Comment Index Number: 13]	4. Streambank and riparian condition were considered in the alternatives in the resolution of issue #2. Riparian condition was one of the criteria used in classifying grazing allotments into M, I, or C categories. In response to the issue, specific allotment resource management objectives have been derived to improve conditions in specified areas. Disposal of wastewater and cuttings is controlled by Oil and Gas Operating Orders #1 and #2 (formally Notice to Lease 6 and 2B). These orders specify to the lessee what procedures must be followed to ensure compliance with applicable state and federal laws and regulations. All operators must have a satisfactory program for the disposal of wastewater and cuttings prior to approval of an application for a Permit to Drill.
5. The EIS states that under the preferred plan, "BLM would try to prevent, rather than mitigate the degradation of water quality . . . by reviewing activities before thay happen, and following applicable laws and regulations . . ." (p. 110). However, a closer analysis reveals that the preferred plan in fact contains no such concrete preventive measures for identified and potential sources of water degradation. [Comment Index Number: 32]	5. Prevention of deterioration of our soil and water resources is preferred over mitigation. The Best Management Practices in Appendix C of the Draft RMP have been adopted by the Montana Statewide 208 Planning organization and other soil and water professionals in state and federal agencies in Montana to prevent or minimize impacts to soil and water resources. These best management practices are used in conjunction with existing state and federal regulations. However, individual actions must still be evaluated on a site-specific basis (through the BLM's environmental assessment program) to determine if any additional preventative or mitigative measures should be applied.
6. The RMP/EIS contains no support or explanation for the conclusion that "(t)here will be approximately a 2,000 acre decrease in unsatisfactory watershed conditions . . . based on changes in grazing allotment management" (p. 111), and no attempt is made at reaching a similar estimate of the total cumulative effect of all other activities under each alternative. [Comment Index Number: 32]	6. The 2,000-acre figure is the best estimate of the impacts on watershed conditions as a result of changes in grazing allotment management. It is based on the resource conditions of the allotments, the potential for the resources in the allotments to respond, and the opportunities and objectives for the allotments. However, since specific allotment management plans that specify grazing systems, stocking levels, and improvements will not be developed until later; it is not possible to give an exact figure for the impacts on watershed. The 2,000-acre figure may increase or decrease slightly once the AMPs are implemented.

TABLE 7-3 (cont.)

WILDLIFE AND FISH RESOURCES

COMMENT	RESPONSE
1. Our concern is that a major fault of the planning process and the document arose because endangered species were not identified as an issue during the "issue driven" planning process, and hence, no goals for these species or their habitats over the planning period are presented in the plan. Lacking these goals, the plan is unable to describe these habitats in any detail. Therefore, resources cannot be allocated directly for management and improvement of those seasonal or year-long habitats of importance to endangered and threatened species in the planning area over the life of the plan. [Comment Index Number: 6, 13]	1. The main reason that issue identification did not indicate threatened and endangered species as an issue is because their habitat is an integral part of several other issues. In particular, the oil and gas, grazing, timber, and wilderness issues address wildlife habitat and focus on any threatened and endangered species impacted by development or use of these resources. Having threatened and endangered species as a separate issue would have been a repetition of information already in the plan. Threatened and endangered species need not be identified as a separate issue in order to receive careful consideration and management. Several actions are identified in the plan that will directly benefit their habitat. The unleased grazing reservations (Table 2-1 of the Draft RMP/EIS) will maintain riparian habitat for the direct benefit of threatened and endangered species. Likewise, the ONA designations in the preferred alternative and the RMF oil and gas stipulations also provide protection. Goals for threatened and endangered species' habitat shaped the substance of the preferred alternative as did other resources not identified as issues. The habitat of threatened and endangered species will be addressed in greater detail during activity planning.
2. The final step needed is the identification and use of various criteria which will be followed in resource use prescriptions to evaluate both case-by-case and area-wide development actions in the future. By establishing these procedures and criteria now, we can then assess whether the action proposed in the RMP/DEIS is or is not likely to affect endangered or threatened species over the long-term. Moreover, funding and manpower resources can be identified in advance of development so that EAR's and other site review processes can be adequately accomplished. [Comment Index Number: 6]	2. The resource management guidance and decision criteria needed to assess impacts on threatened and endangered species are described in Chapter 2 and include provisions for consultation with the Montana Department of Fish, Wildlife, and Parks and the U.S. Fish and Wildlife Service prior to implementing projects that may affect habitat of threatened and endangered species. Of primary importance to grizzly bear and gray wolf habitat is the guidance provided for resolution of the oil and gas, grazing, and motorized vehicle access issues along the Rocky Mountain Front.
3. We hope that the biological assessment serves as a mechanism for evaluating and documenting the endangered and threatened species goals, objectives, and management direction for this resource area. We recommend that BLM incorporate this information into the RMP/FEIS. Upon completion of your assessment, if you determine that the project will affect any of the . . . listed species, formal consultation with the FWS through my office should be initiated. Section 7(d) of the Act requires that during the consultation process, the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives. [Comment Index Number: 6, 7]	3. The Biological Assessment will be forwarded to the U.S. Fish and Wildlife Service. The document will be available for public review in the Headwaters Resource Area office in Butte.
4. We note that there is a discrepancy between figures presented in the body of the RMP/DEIS and reference to data contained in Figure 3-3. [Comment Index Number: 6]	4. You are correct, there is a discrepancy between the text and Figure 3-3. The correct figures for grizzly bear are as follows: total satisfactory habitat is 12,882 acres, total unsatisfactory habitat is 8,588 acres, and total occupied habitat is 21,470 acres. Total riparian unsatisfactory habitat is 3,778 acres or 44% of unsatisfactory grizzly bear habitat This change has been made in the Final RMP/EIS.

WILDLIFE AND FISH RESOURCES

COMMENT	RESPONSE
5. The BLM should . . . consider purchasing or trading for tracts of land known to be critical to threatened and endangered species. The Endangered Species Act directs federal agencies to take all actions necessary to recover species, and acquiring land seems like a logical action to take. [Comment Index Number: 20]	5. Acquisition of wildlife habitat, including that of threatened and endangered species, is one of the important goals of an exchange program.
6. It's simply not enough to say that once the range is in good or excellent condition, everything will be fine for wildlife, because it isn't true. This plan fails to quantify in any way the quality and relative abundance of various kinds of wildlife habitat in the Headwaters Area. [Comment Index Number: 20]	6. Table 3-9 on page 97 of the Draft RMP shows the total acres of BLM habitat, the percent of that habitat in satisfactory condition, and the percent in unsatisfactory condition for mule deer, elk, bighorn sheep, moose, grizzly bear, antelope, mountain goat, waterfowl, and sage grouse. For each of these species, where appropriate, the habitat is further divided into winter/spring, summer/fall, and yearlong habitat. Tables 4-4, 4-10, 4-12, and 4-16 in the environmental consequences chapter show the projected acres of satisfactory and unsatisfactory habitat by alternative for each of the species and types of habitats listed above. Table 2-16 summarizes this information for all alternatives.
7. The document in presenting the alternatives and in stating the management practices intended to be common to all the alternatives, while recognizing the importance of populations of endangered and threatened species, appears to generally relegate their maintenance to that of being but another use of the public lands. Legally, their maintenance should clearly take precedence over other uses. Other uses would in areas of concern be allowable if determined after careful study to be compatible. The plan, we feel, should be revised so as to clearly state the precedence of management of endangered and threatened species. Such revision should also be reflected in the alternatives. Currently, the summary of the consequences of the alternatives indicates that there would be negative impacts on the identified populations of endangered and threatened species. The legal precedence of management of these populations is such that none of the alternatives should result in negative impacts to the populations. [Comment Index Number: 25]	7. The main purpose of the Endangered Species Act (1973, as amended) is to protect and conserve listed species. With regard to federal agencies and this RMP/EIS, the act specifies three legal requirements. One is that agency actions do not cause any destruction or adverse modification of threatened and endangered species or their habitats. Second, the agency must not only maintain listed species and their habitats but aid in the recovery of these species to nonthreatened or endangered status. Third, section 7 of the ESA requires federal agencies to consult with the U.S. Fish and Wildlife Service for any action that may adversely impact a listed species or its habitat. This requirement includes consultation on land use plans and on specific actions resulting from these plans if either stands to impact threatened and endangered species. In Alternatives A and C, especially in the Rocky Mountain Front recommendations, the plan provides more than minimal protection for threatened and endangered species and their habitats. The BLM is currently consulting with FWS on the RMP.
8. We would like to note the excellent knowledge on fish and wildlife shown in the document; however, to make the information presented in the document more meaningful to the reader (and presumably, to the rest of the BLM planning team) the RMP/EIS should include information on crucial winter habitat, wildlife populations, and the relationship of public lands (administered by BLM) to the surrounding areas (administered by state, other federal agencies or private owners) with respect to wildlife habitat and populations. [Comment Index Number: 32]	8. Information on wildlife populations was not presented in the RMP for several reasons. Accurate data on wildlife populations are not available for many portions of the resource area. Many factors other than management actions, such as weather, hunting success, etc., can influence population levels. The BLM is charged with managing habitat. For these reasons the plan addresses habitat condition rather than direct impacts to wildlife populations. Our analysis of wildlife habitat did involve the identification of crucial habitat although it was not specifically identified in the document. The categorization of grazing allotments, the establishment of no surface occupancy stipulations for oil and gas, the designation of areas where no oil and gas leasing would be allowed, and establishment of areas where timber harvesting would be restricted all involved the consideration of crucial wildlife habitat. The BLM recognizes the importance of the relationship between different land ownerships with respect to wildlife habitats and populations. In general, public lands within the resource area contain winter and spring habitat for big game species. This is particularly true of crucial habitats.

WILDLIFE AND FISH RESOURCES

COMMENT	RESPONSE
9. The EIS also lacks any specific forage allocations for wildlife or non-consumptive uses. It states that "sufficient" forage will be provided for wildlife (p. 29) but never identifies how many AUMs will be reserved for wildlife, either in the entire area or in particular allotments. Given the specific forage allocation proposals for livestock, it appears that the Bureau will first allocate forage to livestock and the remainder, if any, will be available for wildlife and non-consumptive uses. This approach is unacceptable. The EIS should make specific forage allocation proposals for uses other than livestock grazing in order to ensure that "sufficient" forage is available for such uses. [Comment Index Number: 33]	9. The Draft RMP/EIS does not identify specific forage allocations, expressed in AUMs, for wildlife or other nonconsumptive uses. However, the RMP does include several provisions to ensure these needs are met: (1) Key tracts of public land will remain unleased for grazing use (see Table 2-1). Many of these tracts are being reserved primarily for the benefit of important wildlife species. (2) The methodology used to determine stocking rates for livestock allows for a significant proportion of total vegetative production to remain available for other uses. Projected stocking rates for livestock are based on guides developed by the Soil Conservation Service through input from soil scientists, range conservationists, and wildlife biologists. Wildlife were considered on an individual range-site basis during the development of these guides to ensure that habitat needs, as well as watershed needs, are met. (3) Wildlife habitat condition ratings and objectives found in Appendix E reflect needed livestock adjustments including adjustments in stocking rates. The target level stocking rates for these allotments provide for maintenance or improvement of wildlife habitats. (4) The wildlife objectives established in the RMP will be implemented in activity plans that incorporate the needs for forage and cover specific to areas of primary wildlife use. (5) Grazing allotments will be monitored to determine if stocking levels meet RMP and activity plan objectives. Monitoring will include analysis of such factors as actual livestock use and range condition. In summary, the RMP addresses the overall habitat requirements of wildlife, which include an adequate supply of forage as well as cover, space, and other requirements. The adequacy of present management practices has been evaluated from an overall wildlife habitat viewpoint. Habitat areas have been assigned a summary condition rating based on consideration of a variety of factors, including forage availability. Areas with insufficient wildlife forage have been rated as unsatisfactory, and objectives have been established that highlight the need for corrective action. The effectiveness of future management in meeting RMP objectives will be monitored, and adjustments in livestock grazing will be made where direct competition for forage between livestock and wildlife is preventing attainment of objectives. Considering present resource conditions, the identified levels for livestock allocations provide for maintenance or improvement of wildlife habitat, provide satisfactory watershed conditions, and provide satisfactory or better resource conditions for nonconsumptive uses.
10. Finally, the EIS lacks specific information about all wildlife other than grizzly bears. For the most part, it fails to describe specific conflicts between wildlife and livestock in particular areas, and instead presents aggregate estimated numbers of wildlife and acres of wildlife habitat. Nor does it describe specific critical habitat areas. Without such detailed information, the reader cannot assess whether the proposed action or the alternatives would adequately resolve existing resource problems. [Comment Index Number: 33]	10. The Draft RMP/EIS contains specific wildlife information for species other than the grizzly bear (see Tables 2-16, 3-9, 4-4, 4-10, 4-12, and 4,16 in the Draft RMP). Also see the response to Comment Number 5. The plan's treatment of wildlife habitat and conflicts with livestock grazing includes both general and specific guidance. The categorization of allotments and the prioritization of f allotments is based upon site-specific wildlife information. Appendix E gives allotment-specific wildlife information including problems and objectives. The RMP's analysis of wildlife habitat is organized in terms of acres and condition of species-specific seasonal habitats. This allowed a better comparative assessment of wildlife impacts and benefits between alternatives. Critical habitat was not dealt with because there is none designated for any species (see Glossary). With regard to threatened and endangered species, the plan considers essential habitat and many of the Alternative A recommendations are designed to protect such habitat. If the reference to critical habitat meant crucial habitat (see Glossary) for nonendangered species, crucial habitat was considered in the development of all alternatives (see also the response to Comment Number 7).

WILDLIFE AND FISH RESOURCES

COMMENT	RESPONSES
11. The people in the county cannot afford to protect people from grizzly bears. Also no state nor federal agency has the manpower to do this. So why promote the increase in the grizzly bear population. [Comment Index Number: 80]	11. As a federal land management agency, the BLM has a legal mandate, via the Endangered Species Act (1973, as amended), to conserve and to aid in the recovery of all listed species. The grizzly bear is listed as threatened.

RECREATION, VISUAL, AND CULTURAL RESOURCES

1. We note that historic properties do exist in Butte District, but the environmental statement does not demonstrate that the Bureau is aware of its responsibilities for the protection of such properties pursuant to Section 110 of the National Historic Preservation Act of 1966, as amended in 1980, nor does it identify a commitment to comply with Section 106 of that Act for those historic properties that would be affected by the actions taken to implement the management program. In-point-of-fact, the descriptions of Bureau historic properties management on pages 23 and 67 imply an independent management program which does not conform to the congressionally mandated program detailed in the National Historic Preservation Act and the Council's regulations. For these reasons we consider the treatment of historic properties in the environmental statement to be inadequate, and we suggest substantial revision of the final environmental statement to ensure that the management program established for the Headwaters Resource Area is in conformance with applicable Federal laws and regulations. In particular, we would like to point out that management decisions regarding historic properties should only be made after consultation with the Montana State Historic Preservation Officer and the Council (as appropriate) in accordance with the steps detailed in 36 CFR 800. [Comment Index Number: 1]	1. All laws and policies affecting historic and cultural resource manaegment, including the National Historic Preservation Act of 1966 and 36 CFR 800, are currently being complied with and will continue to be complied with in the Headwaters Resource Area. The land and resource allocations and management direction provided by the Headwaters RMP should be viewed as supplemental to existing laws, regulations, and policies. The use evaluation system discussed in the Draft RMP/EIS alternative is contained within the BLM Cultural Resources Manual (Draft) and is proposed for inclusion within the Final Uniform Regulations called for in the Archeological Resources Protection Act of 1979. We feel that it is in full conformance with the program mandated by Congress. In addition, individual actions that take place as a result of the RMP will still be analyzed on a site-specific basis through the BLM's environmental assessment process. Cultural resources will be further evaluated at this time and any necessary consultation with the Montana State Historic Preservation Officer and the Council, in accordance with existing federal laws and regulations.
2. The Headwaters Resource Area also contains a portion of the Flathead Wild and Scenic River, a component of the National Wild and Scenic River System. Impacts which would adversely affect this resource should also be avoided. [Comment Index Number: 8]	2. The Flathead Wild and Scenic River is not within the Headwaters Resource Area and, therefore, is not covered in the Headwaters RMP.
3. 'I recommend that the final document specify your personnel needs under each of the alternatives and present your proposed programs for the survey of those portions of the study area which have not yet been surveyed for historic properties as well as your program for the timely evaluation and nomination to the National Register of Historic Places of identified historic properties. [Comment Index Number: 12]	3. Impacts on cultural resources between the various alternatives have suggested no significant long-term change in the program workload. The present table of organization includes two archeologists based at the Butte office who conduct cultural resource inventories for BLM-initiated actions, with work on special projects or non-BLM actions being accomplished by contracting archeologists. This procedure has led to an annual cultural resource inventory of more than 14,000 acres per year on the average. An existing Class 2 inventory of the Dillon and portions of the Headwaters Resource Area have indicated significant historical sites. Once completed a Class 2 inventory of prehistoric cultural resources will lead to a greater knowledge of such resources leading to a greater program efficiency in the identification, evaluation, and nomination of properties eligible to be placed on the National Register of Historic Places.

TABLE 7-3 (cont.)

RECREATIONAL, VISUAL, AND CULTURAL RESOURCES

COMMENT	RESPONSE
4. Recreation Resources: Again, the RMP/EIS contains an accurate general discussion of potential general impacts, but there is no attempt to apply the general knowledge to the "on-the-ground" situation in the Headwaters Resource Area in order to estimate the impact of each alternative on recreation "in detail." [Comment Index Number: 32]	4. Most of the Resource Area receives a very low level of dispersed recreational use and is not impacted to any great degree by any of the alternatives. The developed sites and most of the more popular dispersed sites also will not be significantly affected because they lie outside of the "issue areas" [Rocky Mountain Front, Great Falls Coal Field, etc.]. Examples of these are the Holter Lake Recreation Site, the major river corridors, and most of the riparian dispersed recreation use areas. Recreation impacts for significantly affected areas, such as the Scratchgravel Hills and Sleeping Giant, are discussed in the Draft RMP/EIS. Most recreation impacts are and will continue to be handled on a case-by-case basis when greater detail is available on site-specific impacts so that mitigation can be directly applied.
5. Visual Resources: The RMP/EIS contains no detailed analysis of visual resource impacts. The document merely states that if Class A is managed to retain visual quality "there should be minimal adverse impact" and that "some significant adverse impacts could occur" if suitable visual quality objectives are not applied on scenic quality Class B and C land (p. 115). Nowhere in the RMP/EIS are these objectives described. Adequate analysis of visual impacts, of course, is inhibited by the fact that none of the alternatives actually contains a visual resource management program; each merely proposed to continue evaluating visual resources "as part of activity and project planning" (p. 23). Although the levels and types of development that would occur under each alternative would presumably vary, the EIS unexplicably concludes that visual impacts would be the same under each alternative (pp. 115, 133, 141 and 149). [Comment Index Number: 32]	5. Visual resource management (VRM) was not identified as an issue to be addressed in this RMP. BLM staff and the public appear to be satisfied with current VRM practices in the Headwaters Resource Area that rely on case-by-case analysis and development of mitigating measures to protect scenic values. Current BLM policy requires that VRM inventories be conducted only when needed for issue resolution in RMP efforts or in those sensitive areas where a potentially high-impact project is proposed and no inventory exists. However, the Draft Headwaters RMP could have provided a more detailed explanation of current management direction for the VRM programs. This has been done in Chapter 2 of the final document. A correspondingly more detailed analysis of visual resource impacts has been provided in Chapter 4. It should be noted that, in general, there are no significant differences in impacts under the different alternatives except for those areas being considered for wilderness or other specific designations where VRM management classes are dependent on such designations.
6. The visual resource classification presented on page 67 of the DEIS is arbitrary and represents an unjustified value judgment. Plains areas cannot be said to be inherently lacking in scenic value. Where management decisions are based on arbitrary classifications such as this serious errors are likely to be made. [Comment Index Number: 30]	6. The visual resource management program is designed to assess the visual resources of an area in relationship to the rest of the general area. This does not mean that areas that do not receive a Class A rating are lacking in scenic value. It merely establishes a ranking of the relative values of one area as compared to others. It is not unusual to have specific scenic resources in areas that are not Class A. That is part of the reason that other factors in addition to scenic quality are incorporated into the VRM program. Visual sensitivity and distance zones also are important in developing management classes. In addition, areas that may be sensitive, such as those near travel corridors, normally receive special consideration in spite of a low scenery quality or management class.
7. Finally, visual resource management in Unit 5 and 26 should be sensitive to the location of the Continental Divide Trail and the recreational use thereof. [Comment Index Number: 19]	7. The Continental Divide Trail, as it exists on public lands in the Headwaters Resource Area, occurs primarily in areas that are already impacted by improved roads and other development. In addition, the trail does not receive heavy recreational use at this time. However, stipulations will be attached to any future development proposals for public lands along the route of the trail to assure compatibility of projects with management objectives for the Continental Divide Trail.

SOCIAL AND ECONOMIC CONSIDERATIONS

COMMENT	RESPONSE
1. All four alternatives include the economic costs-benefits associated with range use and oil and gas development as well as the approximate number of jobs created with the timber industry. We believe detailed cost-benefit analyses are required for other non-market resource uses as well as the ones named above. Detailed or quantitative economic analyses of recreational use (motorized as well as non-motorized, hunting/fishing use), wildlife forage allocation (as this relates to hunting activity, for instance) and wilderness preservation would provide a more complete, detailed basis for comparative analysis. Such analysis would provide a better range of alternatives and could change parts of the preferred alternative BLM selects. For example, the inclusion of such data and analysis did lead to a significant change in the Bureau's final proposed plan for the Glenwood Springs Resource Area in Colorado. There, it was discovered through the economic analysis of the wildlife and livestock forage allocation for the Economic Development and Resource Protection alternatives that increasing wildlife forage allocations would result in greater economic benefits, primarily through the impact increased hunting opportunities would have on the area's economy. This was unexpected to the BLM staff who prepared the draft RMP/EIS, and the final plan was adjusted to increase wildlife forage. [Comment Index Number: 32]	1. Available information lacks sufficient detail to do meaningful benefit-cost analysis for each resource. In the plan the oil and gas analysis was based upon a series of assumptions in order to give the reader some idea of the magnitude of impact if a moderately sized field were discovered. The only detailed economic analysis was done on grazing. This was possible because the level of detail needed to meet the provisions of the court settlement of the grazing suit was also sufficient to do a meaningful economic analysis. In accordance with the BLM's range improvement policy, a preliminary benefit-cost analysis was done for each I grazing allotment (see Appendix E). This involved an analysis of estimated project costs and benefits to range, wildlife, and recreation. In addition, as part of the criteria used to categorize allotments, economic values for wildlife and recreation were considered. As specific AMPs or other range improvement proposals are formulated, a more detailed benefit-cost analysis will be completed. Additional economic information is available for wildlife, recreation, and other resources in the Headwaters Management Situation Analysis.

WEED CONTROL

1. The BLM should commit to cooperative efforts with county weed boards, private landowners and state and federal agencies. [Comment Index Number: 13]	1. The Bureau of Land Management considers the control of noxious weeds on the public lands to be an important management function. Budget and personnel constraints are the major factors limiting the BLM from pursuing a more aggressive weed control program. The BLM will continue to work cooperatively with any interested party toward control of noxious weeds. Many infestations involve intermingled ownerships. Most projects that BLM is involved in are planned and accomplished on a multiuser basis. This approach has proven to be effective in controlling the infestations and popular with other cooperators.
2. Weeds and their control cost Montana producers $25-27 million annually. The loss to producers from weed competition, water and nutrient loss and shading is estimated at $2 million. This is after Montana producers have spent $23-25 million on control. Due to these facts, more attention should be given to the identification, mapping and control of noxious weeds in the BLM management plan. [Comment Index Number: 13]	2. Known infestations of both poisonous and noxious plants have been mapped and are included in present inventory data. Only a small percentage of the public lands in the resource area are infested by these plants. The BLM will continually update its information with reports from adjacent landowners and from its own specialists. BLM cooperative efforts for plant pest control would be the same under all alternatives considered in the RMP. As coordinated control plans are developed by county weed boards or other entities, the BLM is committed to participation to the extent of infestation of public lands and current availability of funds.

TABLE 7-3 (cont.)

FIRE MANAGEMENT

COMMENT	RESPONSE
1. The fire program is defined under "management guidance common to all alternatives," but little detail is provided concerning implementation. Given the scattered nature of BLM lands, the policy regarding cooperation with the Department of State Lands, and the USDA Forest Service should be explained. Also, the existence of the County Cooperative Fire Program should be acknowledged, and coordination with the participating counties explained. [Comment Index Number: 13]	1. The BLM is a signatory to and participates in three interagency cooperative agreements, including the Fire Control Cooperative Agreement between the BLM and the State of Montana and the Fire Management Agreement between the BLM and the Northern Region of the Forest Service. These agreements have been developed to better define working relationships and responsibilities among the cooperating agencies. They have not been included in the RMP because they do not affect the allocation of lands or resources within the Headwaters Resource Area. The BLM has no signed agreements with the counties in the Headwaters Resource Area; however, the BLM works through the Department of State Lands in coordinating fire programs with county governments. All cooperative agreements are available for review in the Butte District office.
2. No mention is made of the impacts associated with the prescribed burning of logging debris and sagebrush. The preferred alternative indicates that prescribed burning is planned on both forest and range lands, but no measures are given for mitigating smoke impacts. Reference should be made to the Montana Cooperative Smoke Management Agreement and Plan. [Comment Index Number: 13]	2. The Bureau of Land Management is a signatory and participates in the Montana Smoke Management Cooperative Agreement. Under this agreement the BLM works with the State Airshed Group to minimize air quality impacts from our prescribed burns. This is done by coordinating with other agencies and burning only when there is good smoke ventilation. A copy of the agreement and the air quality burning permit are available for review in the Butte District office.

GENERAL

1. Although the Headwaters Plan is well organized and easy to read, it is very general. Future allotment or project management plans should be specifically described. The effects of each proposed action and the monitoring methods to be used should be identified in the plan. [Comment Index Number: 13]	1. The Headwaters RMP is intended to establish general allocations and guidance for future management of public lands and resources. Allotment management plans and other detailed activity plans will be prepared subsequent to this RMP. Environmental analyses, land reports, records of decision, and other well-established BLM procedures will specifically describe these activities and their specific effects will be identified and analyzed. Monitoring methods to be used will be documented in a detailed monitoring plan to be completed in 1984.
2. Management issues numbered 6, 7, and 8 as they relate to the Scratchgravel Hills are addressed in the county's recently completed Scratchgravel Hills Comprehensive Management Plan. (A copy of this draft document has been sent to Mr. Lyle Fox in your office). [Comment Index Number: 14]	2. The proposed RMP responds to the issues in a manner consistent with, and complementary to, the draft Scratchgravel Hills Comprehensive Management Plan. Future management actions undertaken by the BLM will be subject to the various provisions of this RMP in the Scratchgravel Hills area.
3. While cattle grazing is an important use of the public lands, there are other uses equally important. Defenders of Wildlife feels that specific targets for these values should be established; the plan should try and provide habitat for x number of grizzly bears, for example, and x number of bighorn sheep. [Comment Index Number: 20]	3. The proposed RMP strives to balance competing demands for public lands and resources by treating essentially all uses as "equally important." Specific utilization targets have been established for livestock because the BLM can effectively regulate livestock numbers and seasons of use within defined grazing allotments. Similar targets, such as utilization or population levels, have not been established for wildlife because BLM actions within the resource area generally play a minor role in affecting wildlife population dynamics. However, the RMP does establish habitat objectives which, once accomplished, will provide for an overall improvement in wildlife habitat conditions. See also response to Comment No. 9 in Wildlife and Fish Resources section.

TABLE 7-3 (cont.)

GENERAL

COMMENT	RESPONSE
4. The document contains little in the way of analysis of management practices or criteria. As a consequence, it would seem that a large percentage of the area's public lands would see no significant changes in management practices under any of the proposed alternatives. In our view, the document should be revised so that the proposed alternatives would address in more detail differences in general management practices under the various alternatives. [Comment Index Number: 25, 28]	4. The alternatives respond to the identified issues primarily through the allocation of lands and resources. The general management practices and criteria to be applied (within the framework of the land/resource allocations) would not vary between alternatives, and thus they are discussed under "Management Guidance Common to All Alternatives." The general management practices and criteria presented in the RMP are based on laws, regulations, State Director Guidance, and established BLM policies and procedures; they have already been subject to considerable public review and discussion, and have been applied successfully in the field. They are analyzed in this RMP within the context of the proposed land and resource allocations.
5. The document does not appear to explicitly address the processes and considerations for the designation and protection of unique or exemplary habitats or populations of plants or animals. This should be an important aspect of any planning process. Audubon members due to their interests in these matters are often aware of such habitats and populations and as a consequence are concerned with their recognition and protection. We feel that the plan should clearly identify processes and considerations, inclusive of public involvement, by which such recognition and protection may be achieved. [Comment Index Number: 25]	5. The Headwaters RMP addresses "special designations" as one of the eleven planning issues. The RMP provides for the recognition and protection of unique or exemplary habitats in three areas: The Rocky Mountain Front, where four Outstanding Natural Areas are proposed; the Sleeping Giant, which is proposed for designation as an Area of Critical Environmental Concern; and the Elkhorns, where special management guidance (including removal of commercial forest acreage from the allowable cut base) is proposed for the protection of important elk habitat. Other important wildlife habitats would be protected or, in many cases, improved through the implementation of allotment management plans or through the application of management guidance provided for specific programs such as oil and gas leasing stipulations. No other specific habitats or populations have been identified that appear to warrant further consideration for special designation.
6. If a resource involved in the planning rates special consideration and handling in a resource management plan, then it follows that extra effort must be made by BLM to assure that adequate and continuous direction is given this special resource. The proposed direction under Water on Page 19 of the DEIS is an illustration of this. The direction proposed is good until you reach the point where the phrase "to the extent possible" appears. This phrase effectively deletes the entire purpose and direction previously stated and allows the line manager to determine riparian utility location to proceed at his own whim, rather than under prescribed direction. This is a weakness that needs further attention in the FEIS. [Comment Index Number: 31, 56]	6. Qualifiers such as "to the extent possible" have been deleted from the proposed plan in several instances; however, many such qualifiers remain as originally drafted, including the phrase you refer to on page 19 of the Draft RMP/EIS. A general plan of this nature is not intended to provide absolute and specific guidance that anticipates every localized situation or contingency; instead, "rules of thumb" are established that provide general guidance yet allow for exceptions from the rule.
7. As we mentioned in our comments on the Billings Resource Area plan, the Federation is uneasy with the use of Soil Conservation Service Utilization Standards. SCS grazing rates and standards are aimed at maximum livestock production and usually are not compatible with a coordinated livestock-wildlife multple use management program. We urge that these standards not be used. [Comment Index Number: 31]	7. For most of the public lands grazed, current vegetative condition determinations were made through use of the Soil Conservation Services *Montana Grazing Guides*, a methodology well accepted by the scientific community for the purpose of determining vegetative condition based upon ecological site potential. Any livestock adjustments made will consider utilization data, actual use records, and other monitoring data in conjunction with production estimates based upon these range condition determinations.

TABLE 7-3 (cont.)

GENERAL

COMMENT	RESPONSE
8. In formulating the different alternatives analyzed and compared in the RMP/EIS, different goals and objectives were not developed for each resource in each alternative. (See Table 2-15, p. 47.) In many areas, there is little or no difference in the proposed management actions for each alternative, making the comparative evaluation of impacts in the document extremely limited. [Comment Index Number: 32]	8. Alternatives were developed based on the need to resolve identified issues; resources and programs not "at issue" will be managed in the future essentially as they are at present. Such nonissue resources and programs are discussed in the RMP/EIS under Management Guidance Common to All Alternatives, and impacts to them are analyzed in the Environmental Consequences chapter. Differences between alternatives are based largely on the nature of the issues and on the availability of reasonable options for resolving issues. The alternatives analyzed in the Headwaters RMP explore a reasonable range of issue resolution options, are commensurate with the nature of the issues, and are consistent with the alternative formulation criteria identified earlier in the planning process.
9. More inventory and data—especially on many "nonmarket" resources—is necessary in the RMP/EIS to allow comparison and integration of information concerning all the various land uses BLM is required to consider under FLPMA (see Sec. 103(c)). Eroded and erosion hazard areas, areas of heavy ORV use, localized sources of water pollution, unsatisfactory riparian habitat and different types of recreational use which are briefly mentioned in the Chapters on Affected Environment and Environmental Consequences should be identified on map overlays and quantified to the greatest extent possible. [Comment Index Number: 32]	9. The level of inventory—and data used in developing the Headwaters RMP/EIS including nonmarket resource information —is considered adequate for the purpose of establishing general resource area-wide guidance and resolving the indentified issues. The RMP/EIS displays and quantifies both market and nonmarket information to the extent needed to identify trade-offs allowing for an informed decision regarding selection of the preferred alternative. Additional information will be acquired through monitoring and, in some cases, thorugh additional inventories, and will be used in developing and analyzing site-specific management actions subsequent to RMP approval.
10. Where important information is unavailable because of present budget and time constraints it would also be helpful to the public and future BLM management to specifically identify these data gaps in the document. Indeed, BLM planning regulations require that RMPs generally state where there is a "need for an area to be covered by more detailed and specific plans." (43 CFR 1601.0-5(k)(8)) [Comment Index Number: 32]	10. The Headwaters RMP identifies the need for additional analyses and/or activity plans in order to fully implement such programs as range, forestry, oil and gas leasing, lands, travel planning, fire management, and road and trail construction. Virtually every resource and program discussed in the RMP may require additional data and analysis in the future in order to respond to BLM-initiated activity-level planning. Other actions proposed by non-BLM applicants, such as applications for road or utility rights-of-way, also are likely to require additional data and analyses.
11. As BLM's master land-use plan for the Headwaters area, the RMP/EIS should also contain thorough analysis and management actions for all resources—including water potentially impacted by hardrock mining in the Scratch Gravel Hills and coal mining in the Great Falls Coal Field — even though other state and federal agencies may share the responsibility for protecting these resources. The fact that other agencies share responsibility for protecting these resources does not lessen BLM's statutory and regulatory obligations to protect these resources and to propose concrete ways of doing so. [Comment Index Number: 32]	11. The analysis and management guidance contained in the RMP/EIS are considered adequate for resolution of the mineral exploration and development and coal leasing issues. However, as stated in the plan, additional analyses will be conducted and site-specific coal lease stipulations will be developed, prior to issuance of coal leases. In the case of the Scratchgravel Hills, the decision to allow public lands to remain open to mineral entry and development was based on the finding that a withdrawal of public lands in the area would not be effective in eliminating impacts. The BLM will continue to work within the limits of its statutory and regulatory authority to protect important resource values, including water quality, while permitting mining activity to continue in this area.

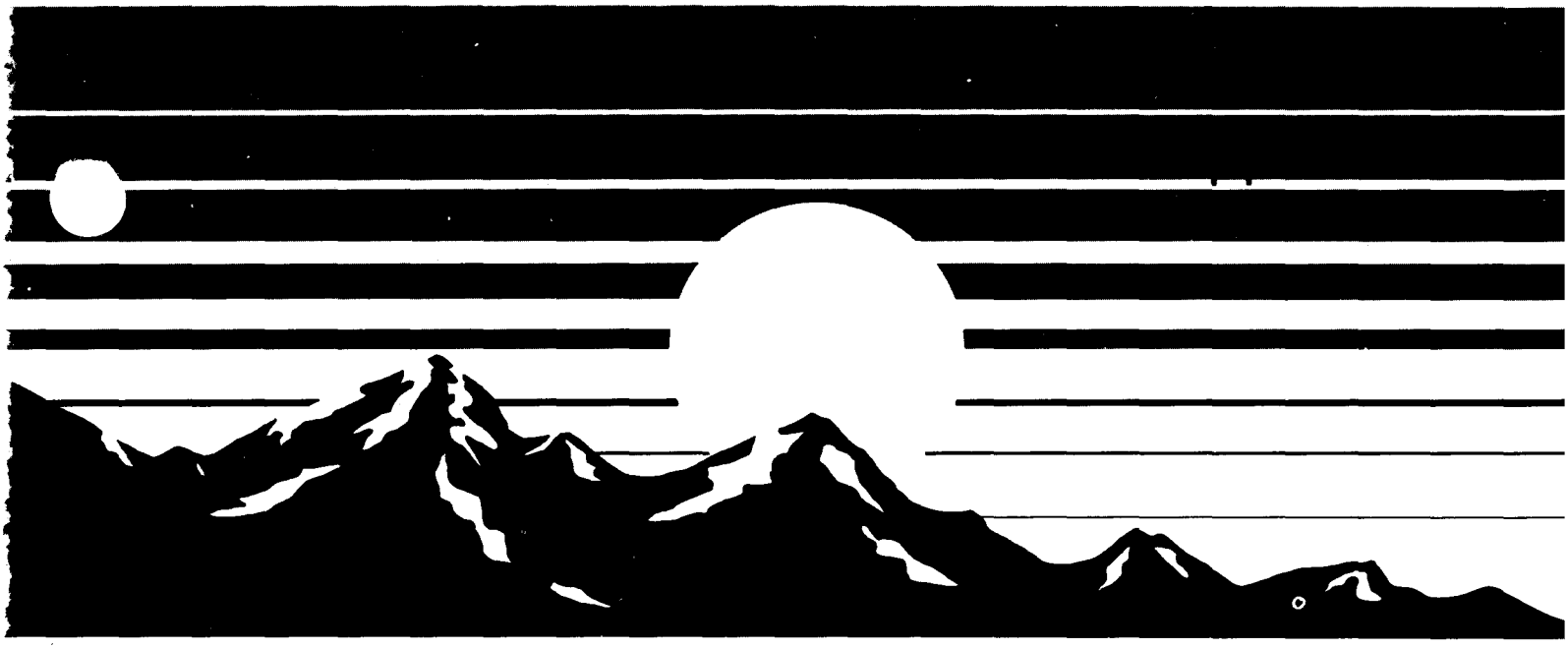
GENERAL

COMMENT	RESPONSE
12. The discussion of alternatives in the EIS is inadequate for other reasons. First, the "no action" alternative contains proposed range improvements and long term forage allocation adjustments (Table 2-5, p. 32; Table 4-9, p. 134), and thus does not really constitute a no action alternative, as required by NEPA. See 40 C.F.R. Sec. 1502.14(d) (1982). Second, the "protection" alternative is self-contradictory because it seeks to advance conflicting goals. If, as the EIS acknowleges, a single alternative cannot realistically "achieve wildlife, watershed, and vegetative" objectives simultaneously (p. 143), then the EIS should include alternatives or sub-alternatives that would advance these individual resource goals. Without such an analysis, the Bureau will never analyze what management actions are necessary to provide full protection for these resources, thereby precluding such actions before they have been considered. [Comment Index Number: 33]	12. The no action alternative in the Headwaters RMP/EIS portrays a continuation of present management direction, including present levels or systems of resource use. The proposed range improvements associated with this alternative are improvements that would be implemented if present management direction was continued. No short-term adjustments in livestock forage allocations are proposed under the no action alternative. However, as discussed in Chapter 4 (Environmental Consequences), the long-term forage allocation adjustments projected for the no action alternative reflect changes in forage availability that are expected if current management direction is continued. These adjustments are not an integral part of the no action alternative; they are, however, among the long-term environmental consequences that could be anticipated if the no action alternative were to be implemented. The protection alternative places primary emphasis on maintaining or improving important environmental values, including wildlife habitat and watershed conditions. The analysis contained in the draft RMP/EIS does not show these goals to be conflicting or self-contradictory. The analyses for this alternative does show, however, that when ecological site condition is used as a measurement standard, the projected long-term percentage of rangeland in poor condition would increase slightly, reflecting the fact that on some sites, vegetative condition at a seral stage less than climax optimizes wildlife habitat condition. At the same time, adequate soil and watershed protection would be provided. Thus, any apparent contradiction of data is due only to the measurement standard used.
13. The EIS also fails to substantiate the environmental impacts predicted, as required by NEPA. It lacks any analysis of the predicted impacts of implementing particular proposals, such as grazing reductions or modifications, in particular allotments. It also lacks any general discussion of why certain kinds of actions might have certain types of effects under various resource conditions. Thus, the EIS totally fails to comply with NEPA's requirement that EISs must demonstrate that the agency has conducted the environmental analyses necessary to substantiate predicted conclusions. See, e.g., 40 C.F.R. Sec. 1502.1, 1502.24 (1982); Department of the Interior, Departmental Manual on NEPA, Sec. 4.14 (45 Fed. Reg. 27546 (April 23, 1980). [Comment Index Number: 33]	13. The environmental analysis contained in Headwaters RMP/EIS is considered adequate to support the general land and resource allocations and management guidance provided in the plan alternatives. The RMP/EIS is not intended to be "the final word" in terms of site-specific proposals and analyses. It is, however, intended to establish a framework within which future site-specific management actions and analyses will be conducted. See also responses to Comments No. 1 and 9 in this section.
14. The EIS lacks any cumulative analysis of the consequences on range, wildlife, and other resources of implementing the diverse aspects of the proposed plan, such as oil and gas leasing, land disposal, and livestock grazing. The EIS only analyzes the impacts of particular types of activities on various resources, without considering cumulative and synergistic affects. Nor does it analyze the extent to which certain activities, such as leasing and land disposal, may preclude the agency from implementing other activities, such as wildlife or livestock use. In short, the environmental analysis is too fragmented to be very useful in formulating a coherent, comprehensive land use plan. [Comment Index Number: 33]	14. Cumulative impacts are discussed for each resource by alternative in Chapter 4, Environmental Consequences, and are summarized in Table 2-16. The significant impacts expected from leasing and land disposal also are identified by resource in Chapter 4; where no significant impacts are identified, none are anticipated.

TABLE 7-3 (cont.)

GENERAL

COMMENT	RESPONSE
15. Although the EIS recognizes that the main impact from many types of development is the construction and use of roads (p. 109), no attempt is made to quantify or estimate the total amount of roads needed under each alternative. An estimate for timbering roads needed is given under the section on forestry, but this is the same under all alternatives and is presumably not the result of comprehensive transportation planning and analysis. The total miles of roads necessary for access, the ecological and visual impacts of these roads and the cost of building the transportation system can often be greatly reduced by long-term, comprehensive transportation planning. Major factors in transportation planning should include projected use, the visual and ecological sensitivity of various alternative transportation corridors, and the various land-use restrictions which can be used by land managers. [Comment Index Number: 32]	15. The forest management program is the only BLM program expected to require a significant amount of road construction during the life of the Headwaters RMP. Such roads will be subject to a more comprehensive transportation planning and analysis process at the time specific timber sale areas are delineated. This process includes an analysis of resource management needs, user safety, impacts to environmental values, and construction and maintenance costs. Such analyses are conducted within the context of compartment management plans and/or environmental analyses and these also include consideration of alternatives and mitigating measures.



APPENDIX A
DESCRIPTION OF MANAGEMENT UNITS

The following pages contain a description of each of the **thirty-six** management units that have been delineated for the Headwaters Resource Area. For each management unit there is a general description of where the unit is located, an acreage figure for the amount of surface and subsurface that is managed by the BLM, and a description of what the management would be under each alternative to resolve ten of the eleven issues identified for the RMP (these eleven issues are discussed in detail in Chaper 1). There is no direction shown for the grazing issue because management direction for grazing has been developed on the basis of allotment boundaries as opposed to being developed by management unit.

The management direction shown for Alternative B, No Action is not necessarily what the management is at the present time; rather, it is a description of what the management would be over the long term. This is a function of how the no action alternative has been defined, and a detailed description of the no action alternative can be found in Chapter 2. Also, the acreage figure for federal minerals represents, unless otherwise noted, the acreage where the federal government owns all the minerals. It does not include acreage where the federal government has only partial ownership of the minerals (such as oil and gas or coal only).

The Management Units map in the back pocket shows the specific location of each of the **thirty-six** management units and should be used in conjunction with these descriptions.

Management Unit 01

Description: This unit includes large blocks of federal mineral estate and scattered tracts of BLM-administered surface in the Rocky Mountain Front area. The unit's surface values are considered high, particularly wildlife habitat and scenery.

BLM-administered Surface: 8,233 acres
Federal Minerals: 68,913 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	See the Oil and Gas Stipulations: Alt. A map	See the Oil and Gas Stipulations: Alt. B map	See the Oil and Gas Stipulations: Alt. C map	See the Oil and Gas Stipulations: Alt. D map
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Avoidance	Avoidance	Avoidance	Avoidance
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 02

Description: This unit includes several isolated tracts of public land along the eastern fringe of the Rocky Mountain Front area. The unit's surface values are considered to be low.

BLM-administered Surface: 120 acres
Federal Minerals: 8,403 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	See the Oil and Gas Stipulations: Alt. A map	See the Oil and Gas Stipulations: Alt. B map	See the Oil and Gas Stipulations: Alt. C map	See the Oil and Gas Stipulations: Alt. D map
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Disposal	Retention	Disposal	Disposal
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 03

Description: This unit encompasses the Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek areas, which are being studied for wilderness under authority of Section 202 of FLPMA.

BLM-administered Surface: 11,218 acres
Federal Minerals: 11,218 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing Development	See the Oil and Gas Stipulations: Alt. A map	See the Oil and Gas Stipulations: Alt. B map	See the Oil and Gas Stipulations: Alt. C map	See the Oil and Gas Stipulations: Alt. D map
Wilderness Recommendations	Not recommended for wilderness	Not recommended for wilderness	Recommended for wilderness designation	Not recommended for wilderness
Forest Management	Set Aside	Low priority	Set Aside	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Withdrawn[1]	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Closed	Restricted	Closed	Restricted
Utility Corridors	Avoidance	Avoidance	Exclusion	Avoidance
Coal Leasing	N/A			
Special Designations	Outstanding Natural Area	No designation	No designation	No designation

[1]Contingent on Congressional approval of wilderness recommendation and subject to valid existing rights.

Management Unit 04

Description: This unit encompasses public land on Ear Mountain.

BLM-administered Surface: 840 acres
Federal Minerals: 840 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing Development	See the Oil and Gas Stipulations: Alt. A map	See the Oil and Gas Stipulations: Alt. B map	See the Oil and Gas Stipulations: Alt. C map	See the Oil and Gas Stipulations: Alt. D map
Wilderness Recommendations	N/A			
Forest Management	Set Aside	Low priority	Set Aside	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Closed	Restricted	Closed	Restricted
Utility Corridors	Avoidance	Avoidance	Avoidance	Avoidance
Coal Leasing	N/A			
Special Designations	Outstanding Natural Area	No designation	Outstanding Natural Area	No designation

Management Unit 05

Description: This unit includes high value forestland in the Rogers Pass portion of the Rocky Mountain Front area.

BLM-administered Surface: 1,880 acres
Federal Minerals: 4,520 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing Development	See the Oil and Gas Stipulations: Alt. A map	See the Oil and Gas Stipulations: Alt. B map	See the Oil and Gas Stipulations: Alt. C map	See the Oil and Gas Stipulations: Alt. D map
Wilderness Recommendations	N/A			
Forest Management	High priority	High priority	High priority	High priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Avoidance	Avoidance	Avoidance	Avoidance
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 06

Description: This unit includes scattered tracts of public land in Park, Pondera, and Teton counties, generally in close proximity to lands administered by other federal agencies. Further study is needed in these areas prior to establishing land ownership adjustment priorities.

BLM-administered Surface: **860** acres
Federal Minerals: **15,464** acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Further study	Retention	Further study	Further study
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 07

Description: This unit includes scattered tracts of public land located throughout the resource area and generally distant from lands administered by other federal agencies.

BLM-administered Surface: **12,414** acres
Federal Minerals: **108,494** acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Disposal	Retention	Disposal	Disposal
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 08

Description: This unit includes a wide variety of tracts of public land located throughout the resource area, usually with high multiple use values.

BLM-administered Surface: **39,305** acres
Federal Minerals: **82,539** acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 09

Description: This unit includes well consolidated tracts of public land located throughout the resource area, usually with high multiple use values including seasonally important wildlife habitat.

BLM-administered Surface: 109,786 acres
Federal Minerals: 170,111 acres

	MANAGEMENT GUIDELINES BY ALTERNATIVE			
Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 10

Description: This unit includes scattered tracts of public land located throughout the resource area, usually with low multiple use values but generally including important wildlife habitat.

BLM-administered Surface: 11,673 acres
Federal Minerals: 44,104 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Disposal	Retention	Disposal	Disposal
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 11

Description: This unit includes two groups of scattered tracts in Cascade and Park counties encompassing important seasonal wildlife habitat. Further study is needed to determine land ownership adjustment priorities.

BLM-administered Surface: 1,837 acres
Federal Minerals: 1,837 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Further study	Retention	Further study	Further study
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 12

Description: This unit includes most of the public land and federal coal within the Great Falls Coal Field.

BLM-administered Surface: 1,110 acres
Federal Minerals: 1,090 acres
Federal Coal: 22,891 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Disposal	Retention	Disposal	Disposal
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Area	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	Available	Not available	Not available	Available
Special Designations	N/A			

Management Unit 13

Description: This unit includes scattered tracts of public land along the Missouri River and within the Great Falls Coal Field.

BLM-administered Surface: 80 acres
Federal Minerals: 80 acres
Federal Coal: 20 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Area	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	Available	Not available	Not available	Available
Special Designations	N/A			

Management Unit 14

Description: This unit includes the upper portion of the Smith River within the Great Falls Coal Field. The only public estate in the unit consists of 260 acres of federal coal.

BLM-administered Surface:	0 acres
Federal Minerals:	0 acres
Federal Coal:	260 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	N/A			
Wilderness Recommendations	N/A			
Forest Management	N/A			
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	N/A			
Motorcycle Use Areas	N/A			
Motorized Vehicle Access	N/A			
Utility Corridors	N/A			
Coal Leasing	Available	Not available	Not available	Available
Special Designations	N/A			

Management Unit 15

Description: This unit includes most of the public land along the Jefferson River and the Missouri River above Canyon Ferry Reservoir.

BLM-administered Surface: 308 acres
Federal Minerals: 308 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 16

Description: This unit includes public land within a small portion of the Great Falls Coal Field and encompasses important seasonal wildlife habitat.

BLM-administered Surface: 120 acres
Federal Minerals: 500 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Available	Available	Available	Available
Coal Leasing	Available	Not available	Not available	Available
Special Designations	N/A			

Management Unit 17

Description: This unit includes public land along the Smith River and the Missouri River between Canyon Ferry and Holter Lakes.

BLM-administered Surface: 6,733 acres
Federal Minerals: 13,325 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 18

Description: This unit encompasses the Beartooth State Game Range.

BLM-administered Surface: 0 acres
Federal Minerals: 920 acres

	MANAGEMENT GUIDELINES BY ALTERNATIVE			
Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	No Occupancy	No Occupancy	No Occupancy	No Occupancy
Wilderness Recommendations	N/A			
Forest Management	N/A			
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	N/A			
Motorized Vehicle Access	N/A			
Utility Corridors	N/A			
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 19

Description: This unit includes public land in the Holter Lake area, north and east of the Sleeping Giant.

BLM-administered Surface: 624 acres
Federal Minerals: 3,354 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	No Occupancy	No Occupancy	No Occupancy	No Occupancy
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 20

Description: This unit encompasses the proposed Sleeping Giant Area of Critical Environmental Concern, including upper Sheep Creek.

BLM-administered Surface: 11,609 acres
Federal Minerals: 8,769 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	No Occupancy	No Occupancy	No Occupancy	No Occupancy
Wilderness Recommendations	N/A			
Forest Management	Set Aside	Low priority	Set Aside	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designation	ACEC	No designation	Recreation lands	No designation

Management Unit 21

Description: This unit includes most of the public land in the Hilger Hills area.

BLM-administered Surface: 3,403 acres
Federal Minerals: 5,725 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Closed	Available
Motorized Vehicle Access	Open	Open	Restricted	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 22

Description: This unit includes an existing powerline crossing of the Missouri River in the Hauser Dam area.

BLM-administered Surface: 813 acres
Federal Minerals: 893 acres

	MANAGEMENT GUIDELINES BY ALTERNATIVE			
Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Window	Available	Window	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 23

Description: This unit includes important seasonal wildlife habitat and high value forestlands in the Eightmile Creek and Boulder-Clancy areas.

BLM-administered Surface: **15,717** acres
Federal Minerals: **17,840** acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	High priority	High priority	High priority	High priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 24

Description: This unit includes high value forestlands in the Boulder-Clancy area.

BLM-administered Surface: 8,626 acres
Federal Minerals: 12,087 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	High priority	High priority	High priority	High priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 25

Description: This unit includes important seasonal wildlife habitat and high value forestlands in the Marysville area.

BLM-administered Surface: 2,757 acres
Federal Minerals: 3,632 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	High priority	High priority	High priority	High priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Closed	Available
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 26

Description: This unit includes high value forestland in the Marysville area.

BLM-administered Surface: 10,396 acres
Federal Minerals: 12,605 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	High priority	High priority	High priority	High priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Closed	Available
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 27

Description: This unit encompasses the Scratchgravel Hills area.

BLM-administered Surface: 5,164 acres
Federal Minerals: 5,204 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Set Aside	Set Aside	Set Aside	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Withdrawn	Available
Motorcycle Use Areas	Closed	Available	Closed	Available
Motorized Vehicle Access	Restricted	Open	Restricted	Open
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 28

Description: This unit includes most of the public land within the Spokane Hills area.

BLM-administered Surface: 2,828 acres
Federal Minerals: 5,331 acres

	MANAGEMENT GUIDELINES BY ALTERNATIVE			
Issues	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Closed	Available
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 29

Description: This unit encompasses the Black Sage Wilderness Study Area.

BLM-administered Surface: 5,926 acres
Federal Minerals: 5,926 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	Not recommended for wilderness	Not recommended for wilderness	Recommended for wilderness designation	Not recommended for wilderness
Forest Management	Low priority	Low priority	Set Aside	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Withdrawn[1]	Available
Motorcycle Use Areas	Available	Available	Closed	Available
Motorized Vehicle Access	Restricted	Restricted	Closed	Restricted
Utility Corridors	Available	Available	Exclusion	Available
Coal Leasing	N/A			
Special Designations	N/A			

[1]Contingent on Congressional approval of wilderness recommendation and subject to valid existing rights.

Management Unit 30

Description: This unit encompasses the Yellowstone River Island Wilderness Study Area.

BLM-administered Surface: 53 acres
Federal Minerals: 53 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	Not recommended for wilderness	Not recommended for wilderness	Recommended for wilderness designation	Not recommended for wilderness
Forest Management	Set Aside	Set Aside	Set Aside	Set Aside
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Withdrawn[1]	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Closed	Restricted
Utility Corridors	Available	Available	Exclusion	Available
Coal Leasing	N/A			
Special Designations	N/A			

[1]Contingent on Congressional approval of wilderness recommendation and subject to valid existing rights.

Management Unit 31

Description: This unit includes most of the public land within the Limestone Hills Area.

BLM-administered Surface: 23,148 acres
Federal Minerals: 25,743 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Available	Closed	Available
Motorized Vehicle Access	Restricted	Open	Restricted	Open
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 32

Description: This unit includes the impact zone and other key areas of National Guard use in the Limestone Hills Area.

BLM-administered Surface: 1,994 acres
Federal Minerals: 1,994 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	No Occupancy	No Occupancy	No Occupancy	No Occupancy
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Available	Closed	Available
Motorized Vehicle Access	Restricted	Open	Restricted	Open
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 33

Description: This unit includes the Colstrip powerline corridor through the southern end of the Limestone Hills.

BLM-administered Surface: 1,709 acres
Federal Minerals: 2,031 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Available	Closed	Available
Motorized Vehicle Access	Restricted	Open	Restricted	Open
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 34

Description: This unit includes two existing powerline crossings of the Missouri and Jefferson Rivers near Townsend and Three Forks.

BLM-administered Surface: 139 acres
Federal Minerals: 139 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Standard Stipulations	Standard Stipulations	Standard Stipulations	Standard Stipulations
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Open	Open	Open	Open
Utility Corridors	Window	Available	Window	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 35

Description: This unit includes public land east of the Missouri River near Toston Dam and encompasses crucial elk winter range.

BLM-administered Surface: 2,738 acres
Federal Minerals: 2,978 acres

MANAGEMENT GUIDELINES BY ALTERNATIVE

Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	No Occupancy	No Occupancy	No Occupancy	No Occupancy
Wilderness Recommendations	N/A			
Forest Management	Low priority	Low priority	Low priority	Low priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Closed	Closed	Closed	Closed
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Avoidance	Available	Avoidance	Available
Coal Leasing	N/A			
Special Designations	N/A			

Management Unit 36

Description: This unit includes public land on the west side of the Elkhorn Mountains and encompasses important elk calving and summer range habitat.

BLM-administered Surface: 7,176 acres
Federal Minerals: 8,697 acres

	MANAGEMENT GUIDELINES BY ALTERNATIVE			
Issue	A. Preferred	B. No Action	C. Protection	D. Production
Oil and Gas Leasing and Development	Special Stipulations	Special Stipulations	Special Stipulations	Special Stipulations
Wilderness Recommendations	N/A			
Forest Management	Set Aside[1]	High priority	High priority	High priority
Land Ownership Adjustments	Retention	Retention	Retention	Retention
Mineral Exploration and Development	Available	Available	Available	Available
Motorcycle Use Areas	Available	Available	Available	Available
Motorized Vehicle Access	Restricted	Restricted	Restricted	Restricted
Utility Corridors	Available	Available	Available	Available
Coal Leasing	N/A			
Special Designations	N/A			

[1]Timber harvest may be used as a management tool to maintain or enhance elk calving and summer range habitat.

APPENDIX B

OIL AND GAS LEASING PROCEDURES

A sample of Form MSO-3100-49 was omitted from the Draft RMP/EIS document, but is included on the following page. This form is used to identify seasonal restrictions on exploration, drilling, and other activities including maintenance and operation of producing wells and facilities. A description of the lease application process can be found in Appendix B of the Draft RMP/EIS.

SAMPLE OF FORM FOR RESTRICTING ACTIVITY DURING CERTAIN PERIODS

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management

_____ (OG Sim Serial Number)

_____ (Serial Number)

OIL AND GAS LEASE STIPULATIONS

(% of lease affected by stipulation)

(____) In order to _____1_____, (____) exploration, drilling and other development activity and maintenance and operation of producing wells and facilities that requires on site access will be allowed only during the period from _____2_____ to _____2_____. Lands within the lease area to which this stipulation applies are described as follows:

3

Exceptions to this limitation in any year may be specifically authorized in writing by the District Engineer, Geological Survey (GS), with the concurrence of the District Manager, Bureau of Land Management (BLM).

_____ Date

_____ Lessee's Signature

1. Critical resource value affected
2. Beginning and ending dates of nonrestricted season
3. Legal description of lands affected

MSO 3100-49 (May 1978)

APPENDIX C
GENERAL BEST MANAGEMENT PRACTICES

(See Draft Environmental Impact Statement)

APPENDIX D

SUMMARY OF ALLOTMENT CONDITIONS AND AUTHORIZED USE

(See Draft Environmental Impact Statement)

APPENDIX E

OPPORTUNITIES, OBJECTIVES, AND IMPLEMENTATION SCHEDULE FOR I ALLOTMENTS

Table E-1 displays resource opportunities and conflicts and management objectives for the I allotments. It also displays the proposed ranking for implementation that was developed for the draft RMP/EIS and a revised implementation ranking based on the current range management policy.

A number of socioeconomic and natural resource factors have been considered in the ranking of these I allotments for implementating the changes recommended in the Final Resource Management Plan (RMP). Each allotment has been placed in one of four groups and then given a rank within that group. Allotments in Group A have both a benefit/cost ratio of at least 1:1, and the improvement needed is a high priority from a natural resource viewpoint. Allotments in Group B have either a benefit/cost ratio of at least 1:1 or a high priority from a natural resource viewpoint, but not both. Allotments in Group C have both a benefit/cost ratio of less than 1:1 and a low priority from a natural resource viewpoint. Allotments in Group D are allotments that may be reclassified as either M or C allotments because of new information developed through the RMP process.

Within each group of allotments a rank has been assigned based on: the percent reduction or increase in AUMs recommended in the Final RMP, the livestock operator's dependency on the public land for grazing, public interest or controversy in bringing about the needed improvement, coordination with other land managment agencies, and the need for further funding to fully implement an existing AMP. The recommendations of the District Grazing Advisory Board also have been considered in making the final rank.

This ranking will be used to select allotments for implementation, but is subject to change as new or better information becomes available. Examples of new considerations are annual budget constraints within BLM, an operators willingness to contribute to the cost of range improvements, unexpected public controversy, etc. The benefit/cost data used in this analysis represents an initial estimate of the number and cost of improvements needed. Better estimates will be available as field inspections of allotments are conducted.

In practice, most of the allotments selected for early implementation will come from Group A. Allotments in Group B could be selected for early implementation if, for example, social or natural resource considerations justify an investment yielding less benefit than cost. Allotments in Group C would be the lowest priority for implementation.

Table E-2 shows the rankings and some of the considerations that were involved in assigning the ranks. A listing of the specific improvements being considered for each allotment is on file in the resource area office.

TABLE E-1

OPPORTUNITIES FOR I ALLOTMENTS

Allotment No.	Allotment Name	Resource Opportunities/Problems/Conflicts	Resource Management Objectives	Proposed Rank	Revised Rank
0201	Missouri	Riparian habitat is in unsatisfactory condition. Excessive surface erosion is occurring on portions of the allotment. Vegetative conditions are good except for a small portion in fair condition.	Reduce bank erosion and increase woody species canopy coverage; increase rating from unsatisfactory to satisfactory. Reduce soil surface factors (SSF's) on portions of the allotment. Maintain the existing vegetative condition.	2	C-9
0209	Dowdy Ditch	Herbaceous composition and vigor is low, shrubs are heavily hedged in the south pasture. The watershed is in satisfactory condition. Vegetation is in fair to good condition.	Increase herbaceous composition for antelope spring-summer habitat on those portions of the allotment where an increase is feasible.	2	C-8
0210	County Line	Mule deer winter browse is in unsatisfactory condition. The watershed is in satisfactory condition. Vegetation is in good condition.	Improve the vigor and availability of browse for mule deer winter habitat. Maintain the existing satisfactory conditions of the watershed and vegetation.	2	B-12
0212	Boulder River	Herbaceous composition and vigor is low on antelope spring-summer range. Slightly higher than normal soil erosion is occurring on portions of the allotment. Substantial portions of the allotment are in fair vegetative condition.	Improve the composition vigor of herbaceous species. Reduce SSF's to an acceptable level by improving the percent of vegetative cover. Improve silty or shallow range sites from fair to good condition.	2	B-13
0215	Breaks	Herbaceous composition and vigor are low on antelope and mule deer spring-summer range. Vegetation is in good condition. Higher than normal soil erosion is occurring on portions of the allotment.	Improve the herbaceous composition and vigor on antelope and mule deer habitat. Maintain current good vegetative condition. Reduce SSF's to an acceptable level by improving the percent of vegetative cover.	2	C-3
0219	Log Gulch	Riparian habitat is in unsatisfactory condition. Certain fences are barriers and entanglement hazards to big game. Higher than normal soil erosion and sediment production is occurring on the allotment. A significant amount of the allotment is in fair vegetative condition. The vegetative trend is mostly up.	Improve the riparian habitat by increasing aspen regeneration and canopy cover, and reduce active bank erosion. Modify two miles of fences to reduce the entanglement hazard. Reduce SSF's on the allotment by increasing the percentage of vegetative ground cover. Continue to improve range conditions.	1	A-12

0220	Bull Mountain	Riparian habitat is in unsatisfactory condition. Certain fences are barriers and entanglement hazards to big game. Higher than normal soil erosion and sediment production is occurring on the allotment. A significant amount of the allotment is in fair vegetative condition. The vegetative trend is mostly up.	Improve the riparian habitat in Conrow and St. Paul creeks to satisfactory condition. Maintain sagebrush on big game winter ranges. Modify two miles of fences to reduce the entanglement hazard. Reduce SSF's on the allotment by increasing the percentage of vegetative ground cover. Continue to improve range conditions.	1	A-1
0225	Keating Gulch Common	The herbaceous composition and vigor is low on antelope spring-summer-fall habitat. The condition of springs and wet meadows is deteriorating. There is excessive soil erosion in the east part of the allotment. Cyclic loco weed infestations occur. Vegetation is mostly in good to excellent condition.	Increase the herbaceous composition and vigor. Reduce trampling and soil erosion around springs and improve water quality. Reduce SSF's on the allotment by increasing the percentage of vegetative ground cover. Control loco weed. Maintain the existing vegetative conditions.	2	C-12
0227	Kimber Diorite	Riparian habitat in Kelly Gulch is unsatisfactory. Antelope habitat in good condition. Knapweed is invading the allotment from adjacent R.R. right-of-way.Vegetative condition is good overall.	Improve unsatisfactory riparian habitat to satisfactory condition. Maintain the existing good condition antelope habitat. Control knapweed and prevent its further spread. Maintain the existing good vegetative condition.	2	D
0230	Whiskey Gulch	Douglas-fir encroachment is diminishing forage production. Poor livestock distribution is causing localized areas of poor vegetative conditions and excessive utilization. Excessive soil erosion is occurring on the allotment. Localized areas of elk and deer winter-spring range are in unsatisfactory condition.	Control Douglas-fir where encroachment is occurring. Improve vegetative cover and livestock distribution patterns in the north pastures. Increase vegetative canopy to reduce soil erosion. Improve the availability of forage to deer and elk, mostly in the north pastures.	1	B-3
0231	High Ore	Riparian habitat is in unsatisfactory condition. Excessive livestock utilization is occurring on some key wildlife seasonal habitat. Vegetation is in good condition.	Improve riparian habitat from unsatisfactory to satisfactory condition. Limit livestock utilization of key species on seasonally important wildlife use areas. Maintain the current overall good vegetative condition.	2	B-20
0233	Indian Creek	There is excessive livestock utilization on "crucial" elk winter range Excessive soil erosion is occurring on the allotment. Vegetative conditions are fair to poor on much of the allotment.	Limit livestock utilization of key species to 30% on elk winter range. Reduce SSF's by increasing vegetative ground cover. Improve fair and poor condition range.	1	B-18

Allotment No.	Allotment Name	Resource Opportunities / Problems / Conflicts	Resource Management Objectives	Proposed Rank	Revised Rank
0234	High Peak	Excessive soil erosion is occurring on the allotment. Wildlife habitat and vegetation are in good condition.	Reduce SSF's by increasing vegetative ground cover on the allotment. Maintain good wildlife habitat condition. Maintain good vegetative condition.	2	B-38
0235	Devils Bottom	Riparian habitat is unsatisfactory and excessive streambank erosion is occurring. Vegetation is in good condition.	Improve the amount and condition of woody riparian species in the canopy and reduce bank erosion. Maintain the present good vegetative condition.	2	B-19
0238	Pole Canyon	Mule deer winter-spring habitat is unsatisfactory. Vegetation is mostly in good condition. Excessive soil erosion is occurring on upland sites and in ephemeral drainages.	Improve browse and herbaceous vegetative conditions on mule deer winter-spring use areas. Maintain sagebrush on key mule deer use areas. Maintain the good condition range. Improve vegetative ground cover and examine the feasibility of placing gully control structures in drainages.	2	B-39
0242	Whitetail Basin	Portions of the allotment are in poor to fair vegetative condition. There are some livestock distribution problems. Some riparian habitat areas are in unsatisfactory condition. Watershed is in satisfactory condition.	Improve the existing poor and fair range sites. Improve livestock distribution on suitable grazing lands. Improve those riparian areas in unsatisfactory condition. Maintain sagebrush on "key" deer and elk seasonal use areas. Maintain the existing satisfactory watershed condition.	1	B-14
0243	Devils Fence	Elk winter-spring range is in unsatisfactory condition in portions of the allotment. Browse (big sagebrush and mountain mahogany) species are important components of mule deer winter habitat. Vegetative condition is good overall. A high percentage of the acreage is unsuitable for livestock (Johnny Gulch pasture).	Increase vigor, composition and availability of bunchgrass on elk winter-spring range. Allow browse canopy to be maintained by natural conditions and not artificial treatments. Maintain the current good condition.	1	A-20
0245	Sugarloaf	Much of the allotment is in fair to poor vegetative condition. There is poor livestock distribution and high sagebrush density. Riparian habitat is in unsatisfactory condition. Elk and mule deer winter-spring range is in unsatisfactory condition. Douglas-fir encroachment is reducing forage production.	Improve the fair and poor condition range sites and the livestock distribution patterns. Improve the riparian habitat to satisfactory condition. Limit and control livestock utilization of grass and browse on key winter-spring range. Control Douglas-fir encroachment	1	A-5

0247	Rawhide	Watershed and vegetation are in good condition. Mule deer winter browse (i.e. bitterbrush) is heavily utilized annually by livestock before September. Bitterbrush is low in composition and vigor.	Maintain the good vegetative condition and satisfactory watershed conditions. Limit livestock utilization on bitterbrush to 20% or less (of current years growth) on deer winter range. Consider interseeding bitterbrush on portions of the allotment.	2	B-33
0248	Little Boulder	There is excessive soil and gully erosion on portions of the allotment. Vegetative condition is mostly good. Deer and elk winter-spring range is in mostly good condition, bitterbrush condition appears static.	Reduce the SSF's to acceptable levels and stop gully expansion by use of control structures. Maintain good range condition. Do not develop additional water on elk winter range use area.	2	B-6
0249	Muskrat	Vegetative condition of open parks is fair to poor The allotment contains four miles of unsatisfactory riparian habitat. The condition of elk winter-spring habitat is unsatisfactory. Important seasonal moose habitat is in unsatisfactory condition.	Improve the range condition to good in the open parks. Improve the riparian habitat to satisfactory condition. (The allotment has limited potential for development of grazing systems to correct the problems identified. Periodic closure to livestock grazing may be employed to meet the stated objectives.) Limit livestock utilization to 30% of key bunchgrass species in open parks. Improve moose habitat in Anderson Gulch by increasing aspen and willow canopy and herbaceous composition and vigor.	1	A-8
0258	Ringing Rocks	The allotment contains significant amounts of fair vegetative condition, and livestock distribution is poor. Higher than normal soil erosion is occurring on portions of the allotment. Deer, elk, and antelope winter-spring range is in unsatisfactory condition in certain areas.	Improve the range condition of fair range sites to good and improve livestock distribution patterns. Increase vegetative canopy in portions of the allotment in order to reduce erosion. Improve herbaceous composition and vigor on big game winter-spring range.	2	C-2
0261	Flood Place	Antelope yearlong habitat is in unsatisfactory condition in certain areas.	Maintain satisfactory watershed and range condition. Improve herbaceous composition and vigor for antelope yearlong habitat. Maintain the canopy coverage of big sagebrush.	2	B-30
0263	Buffalo Creek	Riparian habitat is in unsatisfactory condition.	Maintain the good condition range. Improve the riparian habitat condition by increasing willow and aspen canopy coverage and decreasing bank erosion.	2	B-28
0264	Huller Spring	Vegetative condition is mostly good. Excessive soil erosion is occurring on portions of the allotment, particularly in the meadows. Riparian habitat condition is unsatisfactory.	Maintain the existing vegetative condition. Improve the vegetative cover on certain soil types in order to retard erosion. Improve the vegetative cover and vigor in wet meadows. Improve the riparian vegetative condition by increasing willow vigor and canopy.	2	B-29

Allotment No.	Allotment Name	Resource Opportunities / Problems / Conflicts	Resource Management Objectives	Proposed Rank	Revised Rank
0271	Sappington Spring	Vegetative condition is mostly good. Soil erosion is occurring on portions of allotment. Deer and elk winter forage is often insufficient in portions of the allotment.	Maintain the good vegetative condition. Improve vegetative cover and vigor on certain portions of the allotment in order to retard erosion. Limit livestock utilization to 30% on key species (bluebunch wheatgrass).	2	B-36
0273	Limestone Hills	Livestock distribution is poor, resulting in areas of over-use and under-use. Some areas are in fair vegetative condition. National Guard training activities conflict with present grazing pattern and potential grazing systems. Riparian habitat condition on Indian Creek is unsatisfactory. Elk winter-spring range is in unsatisfactory condition. Poisonous plants occur on the allotment.	The resolution of all the resource problems or conflicts on this allotment would involve a livestock grazing system with a pasture grazing sequence that would be incompatible with existing National Guard use. The future resolution of these resource problems will be dealt with as opportunities arise. However, total resolution or significant progress toward resolution is not expected under current conditions.	1	A-6
0281	Limestone East	Domestic sheep grazing in the winter has resulted in localized areas of heavy sheep concentration and vegetative disturbance. Many range sites are in fair condition, but potential for improvement of these sites is low. Excessive soil erosion is occurring throughout the allotment. There is a high amount of decadence in big sagebrush. Riparian habitat on the Missouri River is in unsatisfactory condition.	Maintain the existing vegetative condition; do not allow fair condition sites to decline in condition. Decrease erosion throughout the allotment. Improve vigor and canopy coverage of big sagebrush for antelope habitat. Control livestock use of riparian habitat in order to improve the condition.	1	A-19
0282	Summit	There are localized areas of unsatisfactory watershed. Watershed conditions are due to excessive soil erosion. Mule deer winter range is in unsatisfactory condition. Vegetative conditions are mostly good throughout the allotment.	Decrease the erosion on those areas where it has been determined to be excessive. Improve the vigor and canopy coverage of big sagebrush and mountain mahogany. Limit domestic sheep utilization of these species. Maintain the good range conditions.	2	B-27
0284	Copper City	Much of the allotment is in fair vegetative condition. There is excessive soil erosion and sediment production on the allotment. Mule deer and antelope spring, summer, and fall range is in unsatisfactory condition.	Improve the fair condition range sites. Control sediment production. Manage for an increase in composition of palatable grasses and forbs. Allow big sagebrush canopy to be determined by natural means and not artificial treatment.	1	B-9

0285	Cottonwood	Vegetative condition varies from fair to excellent. Fair condition range sites have a low potential for improvement. Watershed is mostly in satisfactory condition, but localized areas of excessive erosion occur. Deer and elk spring habitat is in unsatisfactory condition. Riparian habitat is unsatisfactory.	Maintain the current vegetative condition. Improve the vegetative canopy on specific areas in order to reduce soil erosion. Improve the vigor and composition of herbaceous species on spring range. Improve the riparian habitat to satisfactory condition.	2	C-6
0287	Horse Gulch	Much of the allotment is in fair vegetative condition and there is high to moderate potential for improvement. Livestock are poorly distributed on the allotment. High big sagebrush densities are resulting in less livestock forage. Deer and elk winter/spring range is mostly in satisfactory condition.	Improve the fair condition range sites. Treat sagebrush by prescribed burning in order to increase livestock forage. To the extent feasible, mitigate the effects of sagebrush loss on mule deer winter range.	1	B-24
0294	Rattlesnake	Excessive streambank erosion and upland erosion is occurring on allotment. Riparian habitat in Rattlesnake Creek is rated unsatisfactory.	Improve the woody riparian species and herbaceous vegetative canopy in order to reduce erosion. Improve the riparian habitat to satisfactory condition.	2	C-13
0358	Spring	Entire allotment is in fair vegetative condition. Watershed conditions are mostly satisfactory. Antelope and sage grouse yearlong habitat is mostly in unsatisfactory condition.	Improve the vegetative condition from fair to good for those range sites that do not need mechancical treatment. Maintain the satisfactory watershed conditions. Improve the vigor and composition of palatable herbaceous species.	2	C-7
0373	Pipestone	Portions of the allotment are in poor vegetative condition. Portions of the allotment contain unsatisfactory watershed conditions. Mule deer spring range is in unsatisfactory condition.	Improve poor condition range to fair or good. Reduce soil erosion by increasing canopy coverage of herbaceous vegetation on affected areas. Improve vigor and composition of herbaceous species on mule deer spring range.	1	D
0375	East & West Pastures	The majority of the allotment is in poor to fair vegetative condition. The allotment is producing moderate sediment. Excessive utilization levels on browse species are occurring in the east pasture.	Improve poor and fair condition range. Mechanical treatments will be necessary to accomplish this. Reduce soil erosion. Improve winter forage availability for mule deer on the "Black Butte" winter range.	1	B-7

Allotment No.	Allotment Name	Resource Opportunities/Problems/Conflicts	Resource Management Objectives	Proposed Rank	Revised Rank
0376	Toston Canal	Livestock concentrations have caused poor range condition and accelerated erosion near Toston Canal. Livestock utilization levels are excessive on elk winter range. Excessive erosion is occurring on allotment.	Revegetate poor and fair condition areas with rangeland seedings. Monitor and establish carrying capacity for the allotment. Improve livestock distribution. Provide adequate elk winter forage by limiting livestock utilization levels to approximately 30% of key species on elk winter range. Decrease soil erosion.	1	A-15
0398	Sixmile	The majority of the allotment is in fair vegetative condition. Excessive soil erosion is occurring on most of the allotment. Deer and elk winter/spring habitat is in unsatisfactory condition.	Improve vegetation from fair to good on those range sites that have the potential to respond. Decrease soil erosion on the allotment. Improve the vigor and composition of herbaceous species.	2	C-11
0401	Confederate Gulch	There is excessive soil erosion and sediment production. Fair vegetative condition exists on allotment that have a good potential for response. Livestock utilization levels are excessive on elk winter range.	Decrease soil erosion on the allotment. Improve those range sites in fair condition that have the potential to respond. Provide adequate elk winter forage by limiting livestock utilization levels to approximately 30% of key species on elk winter range.	1	B-23
0414	Pole Gulch	Portions of the allotment are in fair vegetative condition and contain a moderate potential to respond. Elk and mule winter/spring habitat is unsatisfactory. Riparian habitat is in satisfactory condition.	Improve those range sites in fair condition to good condition. Improve the composition and vigor of herbaceous species in deer and elk habitat. Maintain the satisfactory riparian habitat.	1	A-10
0424	Greyson Creek	Excessive soil erosion is occurring on the allotment in localized areas. Vegetative condition is mostly fair on the allotment. Riparian habitat is unsatisfactory.	Decrease erosion in those areas where it has been determined to be excessive. Improve those range sites in fair condition to good condition. Improve the riparian habitat to satisfactory condition.	2	C-10
5412	Gold Run Creek	Elk and mule deer winter/spring range is unsatisfactory. Riparian habitat is in satisfactory condition. Range vegetation is mostly in good condition.	Improve the forage availability by limiting fall livestock use to approximately 30% of key species. Maintain the current good livestock grazing condition.		
		Livestock utilization levels are in direct competition for forage on elk and deer winter/spring habitat.	Limit livestock utilization levels to 30% of key elk use areas.	2	B-21

5505	Airport	Watershed is mostly in satisfactory condition. Herbaceous composition and vigor is considered low on antelope winter/spring use areas. Barrier fences are present on the allotment.	Maintain the current good watershed condition. Decrease the proportion of low-value antelope forage plants and increase the proportion of palatable forbs and grasses. Alter one mile of net-wire antelope barrier fence.	2	B-31
6303	Chicken Coulee	Watershed is in good condition. Vegetation on some sites is in fair condition and has good potential to respond to treatments. Livetock use is not well distributed on all areas suitable for grazing. Current utilization of spring-summer grizzly bear habitat may result in competition for forage between cattle and bears. Habitat for bighorn sheep and mule deer is in unsatisfactory condition in some areas.	Maintain the current good watershed condition. Improve vegetative condition on sites currently in fair condition. Improve the overall distribution of livestock and the utilization by livestock. Improve aspen/perennial forb and upland rough fescue/Idaho fescue habitat types that are in unsatisfactory condition.	1	B-1
6307	East Front	Vegetation on some sites is in fair condition and has good potential to respond. Forage utilization by livestock is poorly distributed and over-utilization results in some areas. Aspen/forb habitat types are in unsatisfactory condition for spring-summer-fall use by grizzly bear. Habitat types valuable for mule deer and bighorn sheep winter and spring use are in unsatisfactory condition. Top soil erosion and sediment yield are unacceptably high in some areas. Watershed problems are primarily the result of low vegetative cover and removal of existing cover by livestock and wildlife. Most of the sites that are in unacceptable condition have good potential to return to more stable watershed conditions.	Improve those sites in fair condition to good condition. Improve livestock distribution on suitable areas to ease grazing pressure on problem areas. Improve conditions for habitat types that are currently in unsatisfactory condition. Defer livestock grazing on grizzly bear spring-summer habitat until approximately July 1. Increase vegetative cover and limit the removal of the cover by grazing animals.	1	A-3
6312	Tunnel Lake	Vegetation production in riparian areas and wet meadows is well below potential. Residual vegetative cover for waterfowl nesting is very sparse Upland grass/forbs habitat types are in less than good condition for spring/summer/fall use by antelope.	Improve vegetative production in riparian and wet meadows. Control the removal of vegetative cover in areas that provide potential waterfowl nesting sites. Improve habitat conditions in antelope use areas.	1	A-4
7544	Big Gold Run Creek	Vegetative condition is good. There is competition between elk and livestock on key elk winter range. Riparian habitat is in unsatisfactory condition. Watershed is in good condition.	Maintain current good vegetative condition. Limit livestock utilization levels to 30% on elk winter range. Improve riparian habitat by increasing canopy coverage of willows and decreaseing bank erosion. Maintain the current good watershed condition.	2	B-22

Allotment No.	Allotment Name	Resource Opportunities/Problems/Conflicts	Resource Management Objectives	Proposed Rank	Revised Rank
7609	Black Reef	Vegetative condition for some sites is fair and there is good potential to improve the quality and quantity of forage produced. There is an opportunity to improve residual cover for waterfowl nesting and brood rearing.	Improve forage quality and quantity especially on those sites that are in fair condition. Increase residual cover on sites capable of providing waterfowl habitat.	1	B-10
7610	Pothole	Residual shoreline vegetative cover is limited in the spring. Range and watershed conditions are satisfactory.	Improve the amount of cover in areas suitable for waterfowl nesting. Maintain the satisfactory conditions.	1	A-14
7612	Willow Creek Canal	Some sites with moderate response potential, are in fair vegetative condition. Some mule deer winter/spring habitat could be improved.	Improve forage quantity and quality on sites now classified as fair but which will respond to changes in grazing management. Increase composition of herbaceous plants for winter/spring mule deer habitat sites.	2	B-25
7613	Alkali Flat	Domestic livestock and bighorn sheep are in direct competition for forage in some areas. Riparian habitat is in less than good condition. The quality and quantity of forage produced on some sites is less than desirable. Some mule deer winter/spring habitat is presently in fair condition.	Establish acceptable levels of use for each species of animal to reduce competition for available forage. Manage for good condition riparian habitat. Improve fair vegetative condition sites that have the potential to respond to treatments. Increase the percent composition of herbaceous species in areas that are currently rated fair.	1	A-13
7704	Oxbow	Livestock distribution is concentrated in a few areas because of a lack of water. This results in heavy utilization of some areas, while other areas receive little grazing. Some sites are producing a quality and quantity of forage below their potential. Riparian habitat in lower Sheep Creek is in poor condition. Bank erosion is occurring adjacent to Holter Lake. Soils have low rock content and are not resistent to erosion. The upper Sheep Creek and Rose Gulch areas are heavily used by and provide important habitat for deer and elk yearlong. Water in Falls Gulch contains excessive amounts of mercury.	Improve the distribution of water to achieve better distribution of livestock and more uniform use of forage. Improve vegetative condition for sites now rated fair, in particular those along the Missouri River. Improve riparian habitat in lower Sheep Creek by increasing the cover of willows and by stabilizing soil adjacent to watercourse. Prevent any acceleration of the bank erosion by controlling grazing use of these sites. Forage utilization by livestock in the upper Sheep Creek and Rose Gulch areas should be regulated to ensure adequate forage is available for deer and elk. Monitor water quality in Falls Gulch and determine what actions can be taken to reduce mercury levels.	1	A-2
7713	Danas Bar	Livestock utilization is poorly distributed in this allotment. Many sites are in fair vegetative condition and are producing below their potential. Spring mule deer habitat is in unsatisfactory condition.	Develop additional water sources and install fences needed to better distribute livestock. Improve the quality and quantity of forage produced on sites now in fair condition. Increase the composition and vigor of herbaceous species for habitat in unsatisfactory condition.	1	A-17

7715	Centennial Gulch	Livestock heavily utilize forage adjacent to Hauser Lake. Vegetative conditions are fair and poor for some sites and there is a moderate potential for improvement. Weed infestation occur adjacent to Hauser Lake. Shoreline waterfowl habitat is generally in unsatisfactory condition. Some big game and wild turkey habitat is in unsatisfactory condition.	Improve the quality and quantity of forage produced on sites classified as fair and poor. Control weed infestations. Control grazing use levels on shoreline vegetation to improve waterfowl cover and increase composition of herbaceous plants. Manage unsatisfactory habitat to achieve satisfactory conditions.	1	A-7
7718	Wickiup Creek	Livestock are poorly distributed, which results in heavy utilization of some areas and very light use of others. Some sites are in fair vegetative condition and have a moderate potential to improve. Riparian habitat along the N. Fork of Beaver Creek is in unsatisfactory condition. Livestock and deer/elk are in direct competition for forage in some localities.	Improve the distribution of livstock to achieve more uniform utilization. Improve the quality and quantity of forage produced on sites that are in fair condition. Increase the canopy coverage and reproduction of willows to improve riparian habitat conditions. Establish acceptable forage use levels for livestock to provide forage for deer and elk.	2	B-11
7719	Sheriff Gulch	Poor distribution of water is resulting in spotty use of the available forage. Vegetative condition for some sites is fair. These sites have a moderate potential to improve. While mule deer and elk habitat is rated good, there is an opportunity to improve existing conditions.	Provide more even distribution of water to achieve more even utilization of suitable sites by livestock. Improve the quality and quantity of forage produced on sites now in fair condition. Improve the composition and vigor of Herbaceous plants on mule deer and elk habitat.	2	C-4
7903	Deadman	There are week infestations in clearcuts. Vegetation is in good condition.	Control weeds in clearcuts. Maintain current good vegetative condition.	2	D
7804	Empire Creek	Livestock distribution and control is poor due to lack of water and fencing. Some range sites are in fair condition and producing below potential. Timber encroachment is lowering forage production. Riparian habitat is mostly in poor condition. Mule deer and elk spring, summer and fall use areas are in unsatisfactory condition.	Develop water where feasible, and construct fences to better distribute livestock use. Improve mountain parks and shallow range sites to good condition. Control timber encroachment to maintain/increase forage. Improve riparian habitat by increasing willow and aspen canopy and reproduction. Improve herbaceous composition and vigor in open parks.	1	B-8
7806	Ogilvie Gulch	Lack of water is causing poor livestock distribution. Some sites are in fair condition and producing below potential. Livestock grazing on deer and elk winter and spring range is resulting in forage competition. Riparian habitat on Marsh Creek is unsatisfactory. Watershed is in satisfactory condition.	Develop water to improve distribution. Improve mountain parks and shallow sites to good condition. Improve forage availability for deer and elk. Improve riparian habitat. Maintain watershed condition.	1	D

Allotment No.	Allotment Name	Resource Opportunities/Problems/Conflicts	Resource Management Objectives	Proposed Rank	Revised Rank
7808	Lost Horse Creek	Riparian habitat on a small reach of Lost Horse Creek is in unsatisfactory condition. Availability of deer and elk forage is low in certain areas in September and October.	Improve riparian habitat to satisfactory condition. Improve forage availability for deer and elk on seasonal ranges.	2	D
7809	Gloster	See first three opportunities of Empire Creek. Riparian habitat in Drinkwater Creek is in unsatisfactory condition. There is a need to reduce hot season use. The springs in Sec. 27 are being damaged by concentrated livestock use. Deer and elk habitat is in unsatisfactory condition.	See first three objectives of Empire Creek. Improve the riparian habitat by increasing normal form class on willow and dogwood and increasing reproduction. Fence springs to reduce erosion and improve water quality. Improve herbaceous composition and vigor for deer and elk habitat in Sections 22 and 27.	1	B-16
7810	Edwards Mountain	Some sites are in fair vegetative condition. There is poor livestock distribution from lack of water. Forage production on some sites could be increased through the removal of the forest overstory. There are localized areas of over utilization on wildlife habitat. Watershed is in satisfactory condition.	Improve the vegetative conditon to good on specific sites. Develop water where feasible. Harvest timber where feasible to increase forage production. Improve livestock distribution. Continue with the rest-rotation grazing system. Maintain watershed condition.	1	A-11
7811	Drumlummon-Skelly	Some sites are producing below potential. Riparian habitat in Sawmill Creek and W. China Gulch is in unsatisfactory condition. The spring at the head of Sawmill Creek is heavily trampled by livestock. There are localized areas of heavy livestock utilization on important seasonal wildlife areas. Watershed is in satisfactory condition.	Continue monitoring the existing grazing system and revise if stated objectives are not achieved within timeframes. Improve riparian habitat to satisfactory condition. Fence the spring at the head of Sawmill Creek. Continue monitoring the existing grazing system and revise if utilization levels conflict with seasonally important wildlife habitat. Maintain the watershed condition.	2	B-5
7813	Marysville	Livestock use is concentrated in creek bottoms. Some sites are in fair vegetative condition. Riparian habitat on Ottawa Gulch is in unsatisfactory condition. Watershed is in satisfactory condition.	Fence the allotment to provide better livestock distribution. Improve range sites to good condition Improve riparian habitat. Maintain watershed condition.	1	B-15
7818	Skelly Gulch	Vegetation is in satisfactory condition. There are localized areas of excessive bank erosion. Areas of deer and elk winter/spring habitat is in unsatisfactory condition.	Maintain satisfactory vegetative condition. Reduce bank erosion. Improve deer and elk winter/spring habitat.	2	B-26

7822	Iowa Gulch	Vegetation generally is in good condition. Livestock use is concentrated around water. Antelope yearlong use areas and important summer moist site areas are over-utilized annually. Watershed is in satisfactory condition.	Maintain vegetative condition. Develop alternative water sources to reduce livestock concentrations. Develop moist site grass/forb areas for antelope use by fencing springs and overflow areas. Allow sagebrush to be regulated by natural environmental conditions. Manage for improvement of grass/forb communities for antelope use. Maintain watershed condition.	2	B-17
7823	Iron Siding	Poor distribution of water is causing livestock distribution problems. Some sites are in fair vegetative condition. Localized areas of antelope yearlong habitat is in fair condition. Watershed is in satisfactory condition.	Develop water and construct fences to help control livestock distribution. Improve vegetative condition to good. Implement a rotational grazing system. Improve herbaceous composition and vigor on antelope yearlong range. Maintain watershed condition.	1	A-9
7824	Granite Creek	Poor livestock distribution is leading to overuse and underuse problems. Some range sites are in fair condition. Wildlife habitat in Granite Creek bottom is in poor condition. Water quality is unsatisfactory in Granite Creek.	Fence the allotment to provide better livestock distribution. Improve the quality and quantity of forage produced on fair condition sites. Improve the riparian habitat in Granite Creek bottom. Fence the water sources. Improve the water quality.	2	C-1
7827	Blue Cloud	Poor livestock distribution is leading to overuse and underuse problems. Vegetation is in good condition. Riparian habitat in portions of Nelson Gulch and Blue Cloud Creek is in unsatisfactory condition. Watershed is in satisfactory condition.	Fence pastures and develop water to improve livestock distribution. Maintain vegetative condition. Improve the condition of riparian habitat and upland vegetation. Maintain watershed condition.	1	B-4
7959	Buffalo Hump	Vegetation is in good condition. Excessive bank erosion is being accelerated by livestock grazing and trampling. Watershed is in good condition.	Maintain the current good vegetative condition. Decrease streambank erosion and increase woody species canopy coverage by excluding, or seasonally regulating livestock use. Maintain the current good watershed condition.	2	B-32
7960	Whitetail Creek	Vegetative condition is poor to fair on much of the allotment, and vegetation is producing below potential. Antelope spring/summer/fall and elk and mule deer winter/spring habitat is mostly unsatisfactory. Excessive soil erosion is occurring near spring and moist-site areas.	Improve range conditions and vegetative potential. Improve the vigor and composition of herbaceous species. Decrease soil erosion and watershed damage adjacent to springs.	1	B-2

Allotment No.	Allotment Name	Resource Opportunities/Problems/Conflicts	Resource Management Objectives	Proposed Rank	Revised Rank
9660	Divide Creek	Heavy sagebrush growth is suppressing livestock forage production while providing valuable wildlife browse. Sheep grazing and trampling in bedding grounds are adversely affecting aspen stands. Watershed is in satisfactory condition.	Increase the livestock AUMs via reductions in sagebrush densities while providing ample browse for wildlife needs. Increase aspen reproduction. Maintain watershed in current satisfactory condition.	1	A-16
9672	Eagle Creek	Riparian zones are in poor condition on Park Creek and Eagle Creek. Watershed and vegetation in satisfactory condition.	Improve riparian habitat on Park Creek and Eagle Creek to satisfactory. Maintain watershed and vegetation in current satisfactory condition.	2	B-34
9698	Smith Creek	Many acres are in poor and fair vegetative condition. The riparian zone is in unsatisfactory condition. There is heavy utilization of forage in aspen stands; high erosion activity is occurring along tributaries to the N. Fork Smith River. Some deer and elk spring range is in unsatisfactory condition. Watershed is in satisfactory condition.	Improve the vegetative condition on dry land range sites and in riparian zones from unsatisfactory to satisfactory. Decrease streambank erosion and limit utilization to acceptable levels in aspen stands. Improve deer and elk spring range to satisfactory condition. Maintain watershed in current satisfactory condition.	1	A-18
9708	Little Elk Creek	Riparian habitat is in unsatisfactory condition. Watershed and vegetation is satisfactory.	Improve the riparian habitat condition to satisfactory. Maintain the watershed and vegetation in its current satisfactory condition.	2	B-35
9743	Johnston	Bank erosion is occurring on a portion of the Smith River. Small amounts of elk and deer winter range are in unsatisfactory condition. Watershed is in satisfactory condition.	Decrease riverbank erosion. Increase herbaceous vigor and composition on elk and deer winter range. Maintain the watershed in current satisfactory condition.	4	C-5
9747	Hound	Crucial elk summer/spring habitat is rated unsatisfactory.	Increase the vegetative composition or vigor of rough fescue, thereby improving crucial elk habitat.	2	B-37

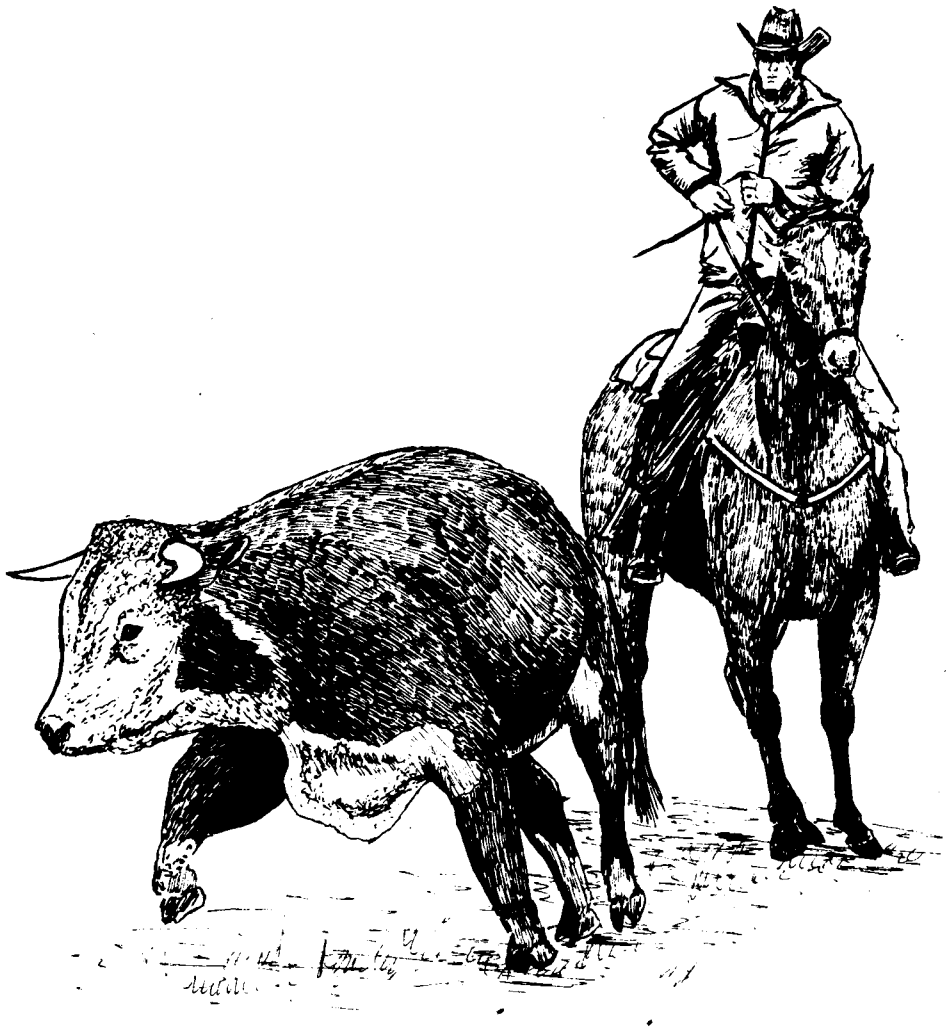


TABLE E-2
ALLOTMENT RANKING AND RPS IMPLEMENTATION SCHEDULE FOR I ALLOTMENTS

Allotment	County	Total Cost (x $1,000)	Benefit/Cost Ratio	Internal Rate of Return	Critical Resource Values	Use Conflicts	Need for Change in Condition	Percentage Reduction (or increase)	Dependency (%)	Other Agency Coord.	Natural Resources Priority	Other Factors Considered	Rank
0201	Broadwater	3.9	0.7	5.6	Wildlife/Mod.	Watershed/ Mod. Wildlife/ Mod.	Low	0	22.0	None	2		C-9
0209	Broadwater	0.6	0.9	7.5	None	Wildlife/ Mod.	Low	0	13.9	None	2		C-8
0210	Jefferson	0	—[1]	0	Wildlife/Mod.	Watershed/ Mod. Wildlife/ Mod.	High	-45	16.7	SCS/Low	2	No new improvements	B-12
0212	Jefferson	0	—[1]	0	Wildlife/Mod.	Watershed/ Mod. Wildlife/ Mod.	High	-54	30.2	SCS/Low	2	No new improvements	B-13
0215	Broadwater	7.6	0.2	5.9	Wildlife/Mod.	Wildlife/ Mod. Watershed/ Low	Low	-71	9.4	None	2		C-3
0219	Jefferson	0.86	1.3	10.2	Wildlife/High	Wildlife/High Watershed/ Mod.	Low	-25	7.0	None	1		A-12
0220	Jefferson	29.0	1.1	8.7	Wildlife/Low	Wildlife/Low Watershed/ Low	Moderate	0	29.0	Low	1	Construction of pipeline programmed for FY 84. Existing AMP.	A-1
0225	Broadwater	16.5	0	0	None	Wildlife/Mod. Watershed/ Mod.	Low	0	13.6	Low	2		C-12
0227	Broadwater	0	—[1]	0	Low	Watershed/ Low	Low	+46	28.5	FS/Low	2	No new improvements	D
0230	Jefferson	30.0	0.7	3.0	Wildlife/Low	Watershed/ Mod.	Moderate	+18	20.3	Low	1	Existing AMP	B-3
0231	Jefferson	0	—[1]	0	Wildlife/High	Wildlife/High Watershed/ Mod.	Moderate	0	4.0	FS/Mod.	2	No new improvements	B-20
0233	Broadwater	63.0	0.2	—	Wildlife/High	Watershed/ Mod. Wildlife/Mod.	Mod. to High	0	18.7	Low	1		B-18
0234	Broadwater	0	—[1]	0		Watershed/ Mod.	Low	+16	2.1	0	2	No new improvements	B-38
0235	Broadwater	0	—[1]	0	Wildlife/Mod.	Watershed/ Mod. Wildlife/Mod.	Moderate	0	—	0	2	No new improvements	B-19
0238	Jefferson	0	—[1]	0	Low	Watershed/ Mod.	Low	0	43.0	Low	2	No new improvements	B-39
0242	Jefferson	14	0.2	-2.4	Wildlife/Mod.	Wildlife/Low	Moderate	0	28.5	Mod.	1		B-14
0243	Broadwater & Jefferson	0	—[1]	0	Wildlife/High	Watershed/ High Wildlife/High	None	-23	8.4	Low	1	No new improvements	A-20
0245	Jefferson	32.7	1.5	10.6	Wildlife/High Watershed/ High	Wildlife/High Watershed/ High	High	-30	63.0	Low	1		A-5

0247	Jefferson	0.34	16.0	—	Wildlife/Mod.	Wildlife/Low	Moderate	0	32.6	None	2		B-33
0248	Jefferson	0	—[1]	0	Wildlife/Mod. Watershed/ Mod.	Wildlife/Mod. Watershed/ Mod.	Low	+75	32.6	None	2	No new improvements. Recently revised AMP.	B-6
0249	Jefferson	12.65	2.5	15.4	Wildlife/High Watershed/ High	Wildlife/High Watershed/ High	High	-62	32.0	Low	1		A-8
0258	Jefferson	36.0	0.2	—	Wildlife/Low	Watershed/ Low	None	0	25.9	Low	2	Existing AMP	C-2
0261	Jefferson	0.86	1.3	10.2	Wildlife/Low	Wildlife/Mod.	None	0	4.8	None	2	No new improvements	B-30
0263	Jefferson	0	—[1]	0	Wildlife/Mod.	Wildlife/Low	Low	0	7.2	None	2	No new improvements	B-28
0264	Jefferson	0	—[1]	0	Vegetation/ High	Wildlife/Low	Low	0	23.3	None	2	No new improvements	B-29
0271	Jefferson	0	—[1]	0	Wildlife/Low	Wildlife/Mod.	Low	0	1.2	None	2	No new improvements	B-36
0273	Broadwater	32.8	1.5	10.9	Wildlife/Mod. to High	Watershed/ Low National Guard/High	Moderate	-38	17.0	National Guard/ High	1		A-6
0281	Broadwater	5.9	1.3	10.0	Low	Watershed/ Mod. Wildlife/Mod.	Low	-25	10.7	None	1		A-19
0282	Broadwater	5.9	1.4	10.1	Low	Watershed/ Mod. Wildlife/Mod.	Low	0	10.7	None	2		B-27
0284	Broadwater	10.0	0.6	3.6	Low	Watershed/ Mod. Wildlife/Mod.	Moderate to High	+95	42.0	None	1		B-9
0285	Jefferson	7.45	0.6	4.0	Wildlife/Mod.	Wildlife/High	None	-50	8.8	None	2		C-6
0287	Jefferson	4.37	0.2	-8	Wildlife/Mod.	Wildlife/Low	Moderate	0	5.7	None	1		B-24
0294	Broadwater	6.9	0	0.6	Low	Wildlife/Mod. Watershed/ Mod.	Low	0	20.3	None	2		C-13
0358	Jefferson	3.0	0.1	—	Low	Watershed/ Mod. Wildlife/Low	Moderate to High	0	7.4	Low	2		C-7
0373	Jefferson	0	—[1]	0	Wildlife/Low	Wildlife/Mod. Watershed/ Mod.	High	0	36.9	Low	1	No improvements. Presently included in Forest Service plan.	D
0375	Jefferson	41.0	0.4	—	Wildlife/Mod.	Wildlife/Mod. Watershed/ Mod.	High	-46	21.8	Low	1		B-7
0376	Broadwater	6.8	1.2	9.2	Moderate	Wildlife/Mod. Watershed/ Mod.	High	0	14.2	Low	1		A-15
0398	Broadwater	11.8	0.1	—	Low	Wildlife/Mod. Watershed/ Mod.	Moderate	0	25.8	Low	2		C-11
0401	Broadwater	8.6	0.4	2.5	Watershed/ High	Wildlife/Mod. Watershed/ High	Moderate	0	24.0	Low	1		B-23
0414	Gallatin	0	—[1]	0	Wildlife/High	Wildlife/High	High	-41	11.2	Low	1		A-10

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Allotment	County	Total Cost (x $1,000)	Benefit/Cost Ratio	Internal Rate of Return	Critical Resource Values	Use Conflicts	Need for Change in Condition	Percentage Reduction (or increase)	Dependency (%)	Other Agency Coord.	Natural Resources Priority	Other Factors Considered	Rank
0424	Broadwater	7.3	0.3	0.5	Low	Wildlife/High Watershed/ Mod.	Moderate	0	4.6	Low	2		C-10
5412	Pondera	0	—[1]	0	Wildlife/High	Wildlife/Mod.	Low	0	16.7	Low	2	No new improvements	B-21
5505	Pondera	3.44	17.3	52	Wildlife/Mod.	Wildlife/Mod.	Low	0	80.0	None	2		B-31
6303	Teton	13.3	0.3	-2.7	Spec. Des./ High Threatened and Endangered Species/High Wildlife/High	Wildlife/Mod. Watershed/ Mod.	Low	0	10.2	FS/High SCS/ High	1	Existing AMP. High resource values.	B-1
6307	Teton	13.8	1.0	8.0	Wildlife/High Threatened and Endangered Species/High Spec. Des./ High	Vegetation/ High Wildlife/High Watershed/High Threatened & Endangered Species/High Spec. Des./ High	High	-18	10.7	FS/High SCS/ High	1	High resource values and significant conflicts.	A-3
6312	Teton	5.2	1.1	8.5	Wildlife/Low	Wildlife/Mod. Spec. Des./ Mod. Vegetation/ Mod.	Moderate	-38	17.7	None	1		A-4
7544	Pondera	0	—[1]	0	Wildlife/High	Wildlife/Mod.	Low	0	5.7	None	2	No new improvements	B-22
7609	Lewis & Clark	6.9	0.7	5.4	Wildlife/Low	Wildlife/Mod. Spec. Des./ Mod.	Low	-50	35.7	None	1		B-10
7610	Teton	1.7	1.7	12.1	Wildlife/Low	Wildlife/Mod. Spec. Des./ Mod.	None	0	6.2	None	1		A-14
7612	Lewis & Clark	0	—[1]	0	Wildlife/Low Vegetation/ Mod.	Wildlife/Mod. Vegetation/ Mod.	Moderate	0	35.7	None	2	No new improvements	B-25
7613	Lewis & Clark	0	—[1]	0	Vegetation/ Mod. Wildlife/Low	Vegetation/ Mod. Wildlife/Mod.	Moderate	0	13.7	None	1	No new improvements	A-13
7704	Lewis & Clark	11.2	46.6	114	Vegetation/ Mod. Wildlife/Mod. Spec. Des./ High	Vegetation/ Mod. Wildlife/Mod. Spec. Des./ High	Moderate	+714	20.0	None	1	AUMs and other values affect-ed by the Sleeping Giant Exchange.	A-2
7713	Lewis & Clark	0	—[1]	0	Wildlife/Low Vegetation/ Mod.	Wildlife/Low Vegetation/ Mod.	Moderate	0	4.0	SCS/ Mod.	1	No new improvements	A-17
7715	Lewis & Clark	5.2	3.1	18.9	Vegetation/ Mod. Wildlife/Mod.	Vegetation/ Mod. Wildlife/Mod.	Moderate	-14	45.0	FS/Mod.	1		A-7
7718	Lewis & Clark	0	—[1]	0	Spec. Des./ Mod. Wildlife/Mod.	Spec. Des./ High Wildlife/ Mod.	Low	-47	6.30	FS/High	2	No new improvements	B—11

7719	Lewis & Clark	6.6	0.8	6.2	Wildlife/Low	Wildlife/Low	Low	0	40.5	None	2		C-4
7803	Lewis & Clark	0	—[1]	0	None	None	None	0	8.5	FS/High	2	No improvements presently included in FS plan.	D
7804	Lewis & Clark	37.2	0.7	5.9	Wildlife/High Spec. Des./ High Vegetation/ Mod. Watershed/ High	Wildlife/Mod. Spec. Des./ High Vegetation/ High Watershed/ Mod.	High	-13	39.0	SCS/High	1		B-8
7806	Lewis & Clark	2.5	2.9	16.5	Wildlife/High Spec. Des./ Mod.	Wildlife/Mod. Spec. Des./ Mod. Vegetation/ Mod.	Moderate	0	23.0	FS/High	1	State in-lieu selection.	D
7808	Lewis & Clark	0	—[1]	0	None	None	Low	0	8.5	None	2	No improvements	D
7809	Lewis & Clark	9.3	0.4	1.8	Spec. Des./ High Wildlife/Mod. Vegetation/ Mod.	Wildlife/Mod. Watershed/ Mod. Spec. Des./ Mod. Vegetation/ Mod.	Moderate	0	6.6	SCS/Mod.	1		B-16
7810	Lewis & Clark	0	—[1]	0	Wildlife/Low Spec. Des./ Mod. Vegetation/ Mod.	Wildlife/Mod. Spec. Des./ Mod. Vegetation/ Mod.	Moderate	0	30.0	SCS/High FS/High	1	No new improvements	A-11
7811	Lewis & Clark	2.5	2.8	21.4	Wildlife/Mod. Watershed/ Mod. Spec. Des./ Mod.	Wildlife/Mod. Spec. Des./ Mod. Vegetation/ Mod.	Low	0	27.2	FS/High	2	Existing AMP	B-5
7813	Lewis & Clark	7.3	0.3	-0.3	Wildlife/Low Spec. Des./ Mod. Vegetation/ Mod.	Watershed/ High Wildlife/Low Vegetation/ Low Spec. Des./ Mod.	Low	0	25.1	None	1		B-15
7818	Lewis & Clark	0	—[1]	0	Wildlife/Low Vegetation/ Low Spec. Des./ Mod.	Watershed/ High Wildlife/Low Vegetation/ Low Spec. Des./ Mod.	Low	0	3.3	None	2	No improvements	B-26
7822	Lewis & Clark	10.4	0.2	-7.8	Wildlife/High Watershed/ Mod. Vegetation/ Mod.	Wildlife/Mod. Watershed/ Low Vegetation/ Mod.	Low	0	49.0	None	2		B-17
7823	Lewis & Clark	5.5	1.5	11.0	Wildlife/Mod. Watershed/ High Vegetation/ Mod. Spec. Des./ High	Wildlife/Low Watershed/ Mod. Vegetation/ Mod. Spec. Des./ Mod.	Moderate	+188	34.6	None	1		A-9

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7824	Lewis & Clark	6.9	0.8	6.2	Wildlife/Low Watershed/ Mod. Vegetation/ Mod. Spec. Des./ Mod.	Vegetation/ High Watershed/ Mod. Wildlife/Low	Moderate	0	19.2	None	2		C-1
7827	Lewis & Clark	6.2	0.8	5.6	Wildlife/Mod. Watershed/ High Vegetation/ Mod. Spec. Des./ High	Wildlife/Mod. Watershed/ Mod. Vegetation/ Mod. Spec. Des./ Mod.	Moderate	0	14.6	SCS/ Mod. FS/Mod.	1	Projects for existing AMP are in the design stage.	B-4
7959	Pondera	1.7	9.2	33.0	Wildlife/Low	Wildlife/Low	Low	0	2.5	None	2		B-32
7960	Jefferson	2.0	0.5	—	Wildlife/Mod.	Vegetation/ Mod. Wildlife/Mod. Watershed/Low	High	0	9.6	Low	1	Existing AMP.	B-2
9660	Meagher	4.1	1.7	12.7	—	Wildlife/High	Moderate	0	6.0	Low	1		A-16
9672	Meagher	0	—[1]	0	—	Wildlife/Mod.	None	0	3.8	Low	2		B-34
9698	Meagher	0	0	0	Wildlife/High	Wildlife/High	Moderate	-36	6.0	Low	1		A-18
9708	Meagher	0	0	0	—	Wildlife/Mod.	None	0	37.5	Low	2		B-35
9743	Meagher	3.4	0	—	Low	Wildlife/Low	Moderate	-54	19.4	Low	2		C-5
9747	Cascade	0	—[1]	0	Wildlife/High	Wildlife/High	Low	0	4.1	Low	2	No new improvements	B-37

[1]Allotments where no costs will be incurred for range improvements, thus the benefit/cost ratio does not pertain.

RPS — Range Program Summary
SCS — Soil Conservation Service
FS — Forest Service
Spec. Des. — Special Designations

APPENDIX F
RANGE DEVELOPMENTS

(See Draft Environmental Impact Statement)

APPENDIX G
GRAZING SYSTEMS

(See Draft Environmental Impact Statement)

APPENDIX H

APPLICATION OF CRITERIA FOR ASSESSING WHETHER FEDERAL LANDS ARE UNSUITABLE FOR ALL OR CERTAIN STIPULATED METHODS OF COAL MINING

As required by the Surface Mining Control and Reclamation Act of 1977, the U.S. Department of the Interior has developed criteria to determine whether federal lands are unsuitable for coal leasing and mining.

This application of the coal unsuitability criteria is directed at the federal mineral estate within the Great Falls Coal Field. No coal lease applications have been received for coal in this area. However, because of the proximity of the Great Falls Coal Field to Montana Power Company's proposed Salem Project, the coal unsuitability criteria are being applied in anticipation of future leasing interest.

Mineable coal in the area under consideration is not suitable for strip mining; therefore, the criteria are being applied to assess the probable effects of surface operations associated with underground mining.

The area involved includes federal coal in portions of the following townships:

T21N, R5E;
T20N, R3E; T20N, R4E; T20N, R5E; T20N, R6E;
T19N, R3E; T19N, R4E; T19N, R5E; T19N, R6E; T19N, R7E;
T18N, R2E; T18N, R3E; T18N, R4E; T18N, R5E; T18N, R6E; T18N, R7E;
T17N, R2E; T17N, R3E; T17N, R4E; T17N, R7E;
T14N, R1E.

This area contains approximately 725 acres of BLM-administered surface and 25,452 acres of federal mineral estate and is shown on the Great Falls Coal Field map.

Directions for application of the coal unsuitability criteria are set forth in 43 CFR 3460. These directions have been followed in assessing whether lands are unsuitable for all or certain stipulated methods of coal mining.

CRITERIA

Each criterion, as defined in 43 CFR 3461.1, is presented first, followed by an analysis. Exceptions are discussed where applicable.

Criterion No. 1

"All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, national forests, and Federal lands in incorporated cities, towns, and villages. All Federal lands which are recommended for inclusion in any of the above systems or categories by the administration in legislative proposals submitted to the Congress or which are required by statute to be studied for inclusion in such systems or categories shall be considered unsuitable."

Analysis. There are no lands within the National Park System, National Wildlife Refuge System, National Wilderness Preservation System, or National Wild and Scenic Rivers Systems. There are no National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, national forests, or federal lands in incorporated cities, towns, and villages within the area under consideration.

Criterion No. 2

"Federal lands that are within rights-of-way or easements or within surface leases for residential, commercial, industrial, or other public purposes, or for agricultural crop production on federally-owned surface shall be considered unsuitable."

Analysis. Approximately ten and one-half miles of transmission line and railroad rights-of-way have been identified on federal lands within the area under consideration. The lands within these rights-of-way, comprising approximately 126 acres, are considered unsuitable for surface occupancy. Underground mining may be permitted because surface disturbance (e.g. subsidence and tension cracks) can be repaired to a standard equal to or better than the condition of existing surface facilities. A lease stipulation is required that ensures repairs are made whenever subsidence or tension cracks cause damage to surface

facilities. **Additional acres may be identified as unsuitable for surface occupancy and/or unsuitable for leasing in the vicinity of Department of Defense facilities, including the hardened intersite communications cable system. Such facilities will be identified, and appropriate lease stipulations will be developed through consultation with the Malmstrom AFB Cable Affairs Officer prior to lease issuance.**

Exception. No exception to the prohibition of surface occupancy is applicable at this time. Any exception applied would require coordination and formal approval of a relocation plan by all parties involved. Exceptions may be applied at a later date provided all parties involved agree.

Criterion No. 3

"Federal lands affected by section 522(e)(4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right-of-way of a public road or within 100 feet of a cemetary or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling."

Analysis. There are no known cemeteries, public buildings, schools, churches, community or institutional buildings, public parks, or occupied dwellings on federal lands within the area under consideration. However, further review will be needed at the time of lease application to assure adequate application of this criterion.

Approximately ten and one-quarter miles of public road have been identified on federal lands within the area under consideration. Such roads and lands within 100 feet of the outside line of such rights-of-way, comprising approximately 369 acres, are considered unsuitable for surface occupancy. Underground mining may be permitted because surface disturbance (e.g. subsidence and tension cracks) can be repaired to a standard equal to or better than the condition of existing roads. A lease stipulation is required that ensures repairs are made whenever subsidence or tension cracks cause damage to surface facilities.

Exception. No exception to the prohibition of surface occupancy is applicable at this time. Any exception applied would require coordination and formal approval of a relocation plan by all parties involved. Exceptions may be applied at a later date provided all parties involved agree.

Criterion No. 4

"Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment, or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976."

Analysis. There are no proposed or designated wilderness study areas within the area under consideration.

Criterion No. 5

"Scenic Federal lands designated by visual resource management (VRM) analysis as Class I (an area of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area."

Analysis. There are no areas of federal lands listed as VRM Class I within the area under consideration. However, further review will be needed of any proposed plan of operations to assure adequate consideration of visual resources.

Criterion No. 6

"Federal lands under permit by the surface management agency and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purpose of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining."

Analysis. There are no federal lands within the area under consideration that are being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations.

Criterion No. 7

"All districts, sites, buildings, structures, and objects of historic, architectural, archaeological, or cultural significance on Federal lands which are included in or eligible for inclusion in the National Register of Historic Places, and an appropriate buffer zone around the outside boundary of the designated property (to protect the inherent values of the property that makes it eligible for listing in the National Register) as determined by the surface management agency in consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Office shall be considered unsuitable."

Analysis. There may be sites, buildings, structures, and objects of historical, architectural, archaeological, or cultural significance on federal lands that are eligible for inclusion in the National Register of Historic Places. However, only a limited survey has been done to determine what, if any, archaeological values are present on federal lands in the area under consideration. It is recommended that those areas that are identified by any proposed mine plan as direct impact areas be completely inventoried to assure adequate consideration of this criterion. Some areas may subsequently be identified for no surface occupancy to protect cultural resource values.

Criterion No. 8

"Federal lands designated as natural areas or National Natural Landmarks shall be considered unsuitable."

Analysis. There are no federal lands designated as natural areas or as National Natural Landmarks within the area under consideration.

Criterion No. 9

"Federally designated critical habitat for threatened or endangered plant and animal species, and habitat for Federal threatened or endangered species which is determined by the U.S. Fish and Wildlife Service (USFWS) and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable."

Analysis. There are no federally designated critical habitats for threatened and endangered plant and animal species within the area under consideration.

Criterion No. 10

"Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a State pursuant to State law as endangered or threatened shall be considered unsuitable."

Analysis. There are no designated critical habitats for state listed threatened or endangered plant and animal species within the area under consideration.

Criterion No. 11

"A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be determined in consultation with the USFWS."

Analysis. There are no known active bald or golden eagle nest sites in the area under consideration. However, the level of data for species occurrence is limited. The area under consideration includes suitable golden eagle nesting habitat and active nest sites are suspected to occur. **Additional raptor surveys will be done prior to issuance of a lease and unsuitable areas will be established where necessary at that time.**

Criterion No. 12

"Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable."

Analysis. There are no known golden eagle roost and concentration areas on the area under consideration.

There is moderate to light bald eagle winter usage along the Missouri and Smith rivers. This use generally takes place from 12/1 to 4/30. There are no known roost sites used in association with this winter habitat. However, the level of inventory data in this area is limited. It is recommended that additional bald eagle roost site inventories be conducted on all affected tracts within five miles of these major drainages. **These inventories would be completed prior to lease issuance.** No surface disturbances, dwellings, occupancy, industrial fires, subsidence, portals, or roads would be permitted in bald eagle winter habitat or roost site areas.

Criterion No. 13

"Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the USFWS."

Analysis. There are no known active falcon nest sites within the area under consideration. However, the level of inventory data for this area is limited. It is recommended that cliff sites be inventoried and buffer zones established **prior to** lease issuance.

Criterion No. 14

"Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or National basis, as determined jointly by the surface management agency and the USFWS, shall be considered unsuitable."

Analysis. The migratory species of high federal interest have not yet been identified for this coal area. Because of this and the fact that inventory data for this area is generally lacking, this criterion cannot be applied at this time. **Once these species of high federal interest are identified, and prior to lease issuance, inventories for high priority habitat for these species will be done and areas unsuitable for surface occupancy will be established.** Surface disturbances associated with underground mining, e.g. dwellings, subsidence, portals, roads, etc., generally can be located such that no adverse impacts occur to migratory species of high federal interest.

Criterion No. 15

"Federal lands which the surface management agency and the State jointly agree are fish and wildlife habitat for resident species of high interest to the State and which are essential for maintaining these priority wildlife species shall be considered unsuitable. Examples of such lands which serve a critical function for the species involved include:

(i) Active dancing and strutting grounds for sage grouse, sharp-tailed grouse, and prairie chicken;

(ii) Winter ranges most critical for deer, antelope, and elk; and

(iii) Migration corridors for elk.

A lease may be issued if, after consultation with the State, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected."

Analysis. Of the twenty sharp-tailed grouse dancing grounds known to occur in the coal area, three occur on federal mineral ownership. An area 500 feet around each ground was delineated as unsuitable for surface occupancy. This equals approximately twenty acres each.

Approximately 480 acres of elk winter/spring habitat occurs within the coal area in T14N, R1E. This area is considered important winter range and spring calving range for a portion of the Beartooth Game Range elk population, which numbers about 1,000 head. No surface occupancy would be allowed on these 480 acres because of the importance of the area for this elk population. No surface disturbances, dwellings, occupancy, industrial fires, subsidence, portals, or roads would be permitted in this area.

Two antelope winter ranges, identified as crucial habitat, are within the coal area. Federal mineral ownership involved is found within T19N, R3E (eighty acres) and T19N, R6E (forty acres). Numbers and intensity of use are not totally known, but a large portion of the antelope herd that uses the area for summer/fall habitat utilizes these winter ranges. These 120 acres are identified as unsuitable for surface occupancy.

Two mule deer winter ranges, with federal mineral ownership, are found in the coal area. The Box Elder Creek winter range contain 120 acres of federal minerals in T19N, R6E and 320 acres in T19N, R5E. The Smith River winter range contains 160 acres in T17N, R3E. These two areas support high densities of mule and white-tailed deer. The 500 acres identified are considered unsuitable for surface occupancy.

If it can be shown that the surface occupancy will not have a significant long-term impact on these important wildlife habitat areas, or that seasonal restrictions on surface occupancy could mitigate the onsite impacts, these portions of the coal area could be considered for surface occupancy.

Criterion No. 16

"Federal lands in riverine, coastal, and special floodplains (100-year recurrence interval) shall be considered unsuitable unless after consultation with USGS, the surface management agency determines that all or certain stipulated methods of coal mining can be undertaken without substantial threat of loss to people or property, and to the natural and beneficial values of the floodplains on the lease tract and downstream."

Analysis. Approximately nine and one-quarter miles of special or 100-year floodplains have been identified along the Smith River, Sand Coulee Creek, Ming Coulee Creek, Goodman Coulee Creek, Boston Coulee Creek, Spring Coulee Creek, Cottonwood Creek, and their tributaries. This results in about twenty-five acres being unsuitable for the location of surface facilities.

Criterion No. 17

"Federal lands which have been commited by the surface management agency to use as a municipal watershed shall be considered unsuitable."

Analysis. There are no federal lands in the area under consideration that have been commited to use as a municipal watershed.

Criterion No. 18

"Federal lands with National Resource Waters, as identified by states in their Water Quality Management Plans, and a buffer zone of Federal lands one-quarter mile form the outer edge of the far banks of the water, shall be unsuitable."

Analysis. There are no federal lands with National Resource Waters in the area under consideration.

Criterion No. 19

"Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley floors according to the definition in 3400.0-5(a) of this title, the standard in 30 CFR, Part 822, the final alluvial valley floor guidelines of the Office of Surface Mining Reclamation and Enforcement when published, and approved State programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additonally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable."

Analysis. Sufficient information is available to preliminarily identify alluvial valley floors on federal lands within the area under consideration. These lands comprise approximately 6,550 acres. However, due to the lack of detailed studies, no federal lands are being excluded from leasing or surface occupancy at this time. More detailed analysis to determine final alluvial valley floors and contributing lands will be done during review of lease applications and prior to approval of any mining permit.

Criterion No. 20

"(ii) adopted by rulemaking by the Secretary, shall be considered unsuitable."

Analysis. The State of Montana has not proposed any other criteria.

FINDING

All federal coal in the area under consideration is determined to be acceptable for further consideration for coal development, pending further study. The acceptable area totals 25,452 acres of federal subsurface containing 125,657,000 tons of coal.

In addition, approximately **1,780** acres are identified where surface occupancy would be prohibited (see Table H-1). The Application of Coal Unsuitability Criteria map shows the areas where special stipulations would be applied.

RATIONALE

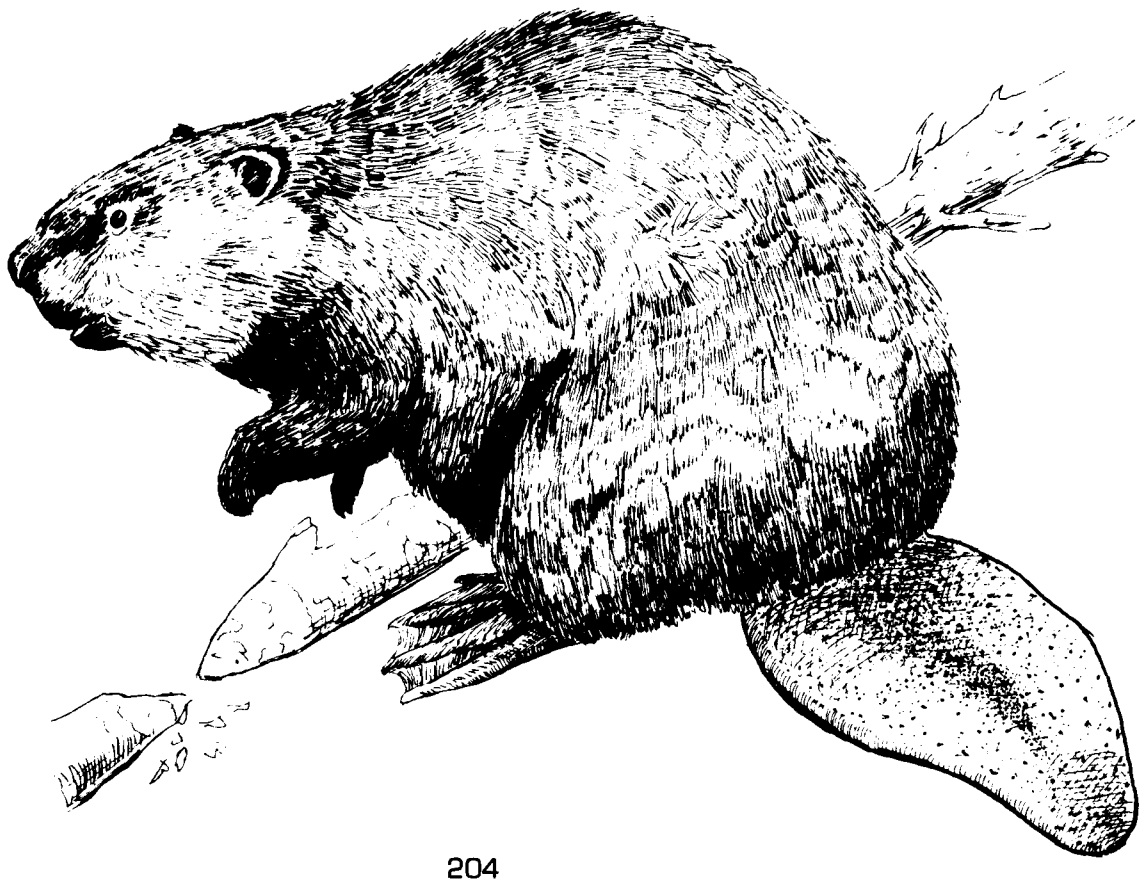
The unsuitability criteria have been applied to all federal lands within the estimated boundary of the Great Falls Coal Field. Coal in this area is probable affects of surface disturbances associated with underground mining. On the lands under consideration, surface occupancy will be prohibited where necessary, or impacts will be sufficiently mitigated by use of appropriate lease stipulations. Additional lands may be identified as sensitive to impacts of coal mining operations as a result of site-specific analysis of lease applications and coal mining plans.

TABLE H-1

RESULTS OF APPLICATION OF UNSUITABILITY CRITERIA: GREAT FALLS COAL FIELD

	Acres	Estimated Tons[1]
Total Federal Coal	25,452	125,657,000
Total Eliminated From Further Consideration for Leasing	0	0
Total Eliminated from Surface Occupancy		
By Criteria #2	126	—
By Criteria #3	369	—
By Criteria #15	1,260	—
By Criteria #16	**25**	—
Total	1,780	—
Total Federal Coal Available for Further Consideration for Leasing, Pending Further Study	25,452	125,657,000

[1]Estimated federal coal tonnage (short tons) was derived from data contained in "Stratigraphy and Economic Geology of the Great Falls-Lewistown Coal Field — Central Montana," published by the Montana Bureau of Mines and Geology. Reserves in the Stockett-Sand Coulee and Belt Creek coal basins were averaged, resulting in an estimated 4,937 short tons of coal per acre.



APPENDIX I
MONITORING AND EVALUATION

(See Draft Environmental Impact Statement)

APPENDIX J

SIGNIFICANT SOILS IN THE HEADWATERS RESOURCE AREA

(See Draft Environmental Impact Statement)

APPENDIX K

SUMMARY OF WILDERNESS STATUS THROUGHOUT MONTANA

(See Draft Environmental Impact Statement)

APPENDIX L

DETAILED DISCUSSION OF AREA BEING STUDIED FOR WILDERNESS

(See Draft Environmental Impact Statement)

APPENDIX M
METHODOLOGY USED IN THE RANGE ANALYSIS

METHODOLOGY FOR VEGETATIVE INVENTORY

A vegetative inventory on public land in the Headwaters Resource Area was conducted beginning in October of 1979 and field work was completed in November of 1981. The data collected have been used in this document to classify sites, determine the vegetative condition of plant communities, and determine the suitability of the land for livestock grazing.

Classification

Two classification systems were used in site identification. Sites dominated by grassland, shrub, or a mixture of grass/shrub vegetation were classified according to the Soil Conservation Service's *Montana Grazing Guides* (1974) as ammended. This system interprets the site based upon geographic region (in this case the foothills and mountains of Montana); soil characteristics, including texture and depth; mean annual precipitation; and climax vegetation, to the extent that it can be interpreted for the site.

Sites having the potential to produce a 10% or greater canopy coverage of trees in near climax condition were classified according to *Forest Habitat Types of Montana* (USDA, FS 1977a). This system interprets the site based upon the potential climax tree species and indicator plants that occur in the undergrowth.

Vegetative Condition

Inventory crews first identified and delineated the boundaries for the sites to be inspected. Estimates of plant species composition, based on weight, were then made for the plant community found on each site. Using tables in the SCS's *Montana Grazing Guide*, and more detailed data in the SCS's unpublished Technical Range Site Descriptions for Montana, the present species composition was compared to the potential climax composition for the site. A condition rating was computed for the vegetation on each site. This rating represents the extent to which the site differs from potential climax. While this condition rating is often referred to as range condition, this document refers to the rating as vegetative condition. This is done to better separate this rating from a rating of overall resource condition, and to inject a less subjective interpretation of the term condition.

Four condition classes are set forth by the SCS. A plant community in excellent condition exhibits little change in species composition when compared to the potential climax plant community for the site. Between 100% and 75% of the kinds and amounts of vegetation produced would be found in climax. Good condition communities produce between 75% and 51% of the kinds and amounts of vegetation found in climax. Fair condition communities produce between 50% and 26% of the kinds and amounts of vegetation found in climax. Poor condition communities produce between 25% and 0% of the kinds and amounts of vegetation found in climax. A fifth condition class of unclassified was used in the inventory to designate vegetative communities that could not be legitimately compared to a climax community. The unclassified rating was applied to areas that had been plowed and seeded, areas where native vegetation has been manipulated by mechanical or chemical means, areas of undergrowth communities having dense forest canopies or heavy duff accumulation, etc.

Suitability

The suitability of each site for livestock grazing was recorded. One of four ratings was assigned to each site: suitable, no environmental factors restricting livestock access and use of the site; potentially suitable, environmental factors now limit livestock access or use, but changes could be made that would make the site suitable; unsuitable, environmental factors now limit livestock access or use that cannot be changed; and limited suitability, most commonly used for areas producing ephemeral vegetation. The major criteria used to rate range land suitability are: distance from water, slope or other physical barriers, forage production, and the erosion rating for the soil. BLM Instruction Memorandum 78-134 was used in applying these criteria.

ALLOTMENT CATEGORIZATION

Specific criteria were developed to evaluate the management situation for each allotment and single out those allotments that will require a change in present grazing management in order to resolve conflicts in the use of resources. The present condition of the resource, its potential to respond to management changes, the current management situation, and the socioeconomic feasibility of changing grazing management were all used as criteria. These are based on current BLM policy, which can be found in W.O. I.M. 82-292. Each criterion was rated independently by a cross section of resource specialists familiar with the allotment. Each specialist recommended placement of the allotment into one of three management categories. Finally, the ratings and recommendations were reviewed by the Area Manager who made a tentative decision on how the allotment would be categorized. Appendix D places each allotment into one of the three management categories and describes livestock use in each allotment. Table M-1 shows the natural resource factors for each allotment that were used in the categorization process. The management category for an allotment may be changed after the RMP/EIS is completed in 1983, or may be changed when resource conditions change or new data becomes available.

Allotments Where Change is Not Feasible

These allotments are best described as follows: little, if any, conflict exists in resource use; overall, resource values are relatively low; the biological potential for response to different management is low; the size or potential productivity of the allotment does not warrant the expenditure of funds for supervision; and/or the cost of range improvements needed to change grazing management exceeds the expected benefits. These allotments are referred to as custodial management, or C allotments.

Allotments Where Change is Not Needed

These allotments are best described as follows: vegetative and watershed conditions are satisfactory; the allotment has the potential for high resource production and is producing near its potential; there are no serious resource use conflicts; and/or the allotment's size and physical characteristics could warrant investment of public funds for range improvements and/or supervision. These allotments are referred to as maintenance management, or M allotments.

Allotments Where Change is Needed

These allotments are best described as follows: vegetative and/or watershed conditions are not satisfactory; the allotment's potential production is high to moderate, but it is producing below its potential; there are substantive conflicts with other resource uses; and/or the allotment's size, physical characteristics, and the anticipated benefits from management changes warrant investment of public funds for range improvements and/or supervision. These allotments are referred to as improvement management, or I allotments.

GRAZING MANAGEMENT PROBLEMS, OPPORTUNITIES, AND OBJECTIVES

Table M-2 describes the most common problems that are encountered in the administration and management of livestock grazing on public land in the resource area. It also describes in general terms what management actions can be used to correct the situations. The table is intended to provide an overview of how grazing management or administration could be improved to favor livestock and/or forage production. The situations described do not apply to all allotments nor do the management actions take into account multiple use management considerations.

Appendix E presents allotment specific problems and objectives that consider multiple use management. Economic analyses will be applied to each allotment that requires an investment of public funds to implement needed changes.

TABLE M-1
RESOURCE CONDITIONS/CONFLICT

No.	Allotment Name	Change needed in veg. cond. &/or prod.	Potential of veg. to respond	Change needed in watershed conditions	Potential of watershed to respond	Change needed in wildlife hab. cond.	Potential of habitat to respond	Change needed in rip. area condition	Potential of rip. areas to respond	Special areas of concern	Tent. mgmt. categ.	Priority for proposed AMP allotment (wild./ran.)
0201	Missouri	No	Mod.-Low	Significant	High	No	Hi-Mod.	Significant	Hi-Mod.	Bald eagle & fisheries	I	1/2
0202	Q&Q Common	Some	Mod.-Low	Some	Low	Minor	Low	Significant	Low	Deer wt/sp use	M	
0203	Alta Mountain	No	Mod.-Low	Significant	Mod.	No	Low	Significant	Low	Deer wt/sp use	M	
0204	Amazon	Some	Mod.	No	Low	No	Low	Minor	Hi-Mod.	Deer wt/sp use	M	
0205	Wicks	Some	Mod.-Low	No	Mod.	Some	Mod.	Minor	Hi-Mod.	Big game wt/sp	M	
0206	Stauback Creek	No	Mod.-Low	No	Low	Significant	Low	—	—	None	C	
0207	Prickly Pear	No	Mod.-Low	Some	Mod.	Minor	Mod.	Minor	Hi-Mod.	None	M	
0208	Dry Mountain	No	Mod.-Low	No	Mod.-Low	No	Mod.	—	Hi-Mod.	None	M	
0209	Dowdy Ditch	No	Mod.	No	Low	Significant	Low	—	—	None	I	2/2
0210	County Line	Significant	Mod.-Low	Some	Low	Some	Mod.-Low	—	—	Deer wt/sp	I	1/2
0211	N. Doherty	No	Mod.-Low	No	Low	No	Low	—	—	None	M	
0212	Boulder River	Significant	Mod.-Low	Some	Mod.-Low	Some	Mod.	—	—	None	I	2/2
0213	Silver Sage	Minor	Mod.	No	Mod.-Low	No	Mod.	—	—	None	M	
0214	Rattlesnake Creek	No	Low	No	Low	No	N/A	—	—	None	C	
0215	Breaks	No	Mod.-Low	Significant	Mod.-Low	Significant	Low	—	—	Osprey nesting	I	2/2
0216	Black Sage	Minor	Low	No	Low	No	Mod.	—	—	deer, antelope	M	
0217	S. Doherty (E&W pasture)	Some	Mod.-Low	Some	Low	No	Low	—	—	deer	M	
0218	Dry Creek	Some	Low	No	Low	No	Low	—	—	Deer/elk wt/sp	M	
0219	Log Gulch SGC	No	Low	Some	Low	Significant	Mod.	Significant	Hi-Mod.	Antl./deer wt/sp.	I	1/2
0220	Bull Mountain	Some	Mod.	Significant	Hi-Mod.	Some	Mod.	Significant	Mod.-Low	Antl./deer	I	1/1
0221	Yellowshack	Some	Low	Minor	Low	Significant	Mod.	—	—	Antl./S. grouse	M	
0222	Whitehorse	No	Mod.-Low	No	Low	No	Mod.	—	—	None	M	
0223	Beaver	No data	Mod.-Low	No	Low	Minor	Hi-Mod.	Some	Hi-Mod.	None	M	
0224	Clark Gulch	No	Low	Some	Hi-Mod.	No	Low	—	—	None	C	
0225	Keating Gulch Common	Some	Mod.	Significant	Hi-Mod.	Significant	Hi-Mod.	Significant	Hi-Mod.	None	I	1/1
0226	Individual	No	Low	No	Low	No	Low	—	—	None	C	
0227	Kimber Gulch	No	Mod.	Significant	Hi-Mod.	No	Hi-Mod.	Significant	Hi-Mod.	Elk wt/sp.	I	2/2
0229	Beaver Creek	No	Mod.	No	Low	No	Hi-Mod.	No	Hi-Mod.	None	C	
0230	Whiskey Gulch	Some	Mod.-Low	Significant	Mod.-Low	Some	Mod.	No	Hi-Mod.	Deer wt/sp.	I	1/1
0231	Hi Ore	Some	Mod.-Low	Some	Mod.	Significant	Mod.	Significant	Hi-Mod.	Elk/deer wt/sp.	I	1/1
0232	Keating Individual	No	Mod.-Low	No	Hi-Mod.	No	Hi-Mod.	—	—	None	M	
0233	Indian Creek	Significant	Mod.	Significant	Mod.-Low	Significant	Hi-Mod.	No	Hi-Mod.	Elk/blue-grouse	I	1/1
0234	High Peak	No	Mod.-Low	Significant	Hi-Mod.	No	Hi-Mod.	No data	?	Osprey	I	2/2
0235	Devils Bottom	Some	Mod.	Significant	Low	No	Hi-Mod.	Significant	Hi-Mod.	Osprey/ fishery	I	1/2
0237	Emigrant Creek	No	Mod.	No	Low	No	Low	—	—	None	C	
0238	Pole Canyon	Minor	Mod.	Significant	Hi-Mod.	Some	Mod.	Significant	Hi-Mod.	None	I	1/2
0239	Bigfoot	No	Hi-Mod.	Some	Mod.-Low	No	Mod.	Minor	Mod.	None	M	
0240	Rocky Canyon	No	Mod.-Low	Some	Mod.-Low	No	Mod.	No	Hi-Mod.	None	M	
0241	Little Boulder	No	Low	Some	Low	No	Low	Minor	Hi-Mod.	Deer/elk wt/sp/su	M	

0242	Whitetail Basin	Some	Mod.	No	Mod.-Low	Some	Mod.	No	Mod.	Elk/antl.	I	2/1
0243	Devils Fence (Broadwater Co. Pastures)	No	Hi-Mod.	Significant	Low	Significant	Hi-Mod.	—	—	Elk/deer, wt/sp	I	1/1
	(Jefferson Co. Pastures)	Significant	High	Significant	High	Significant	Mod.	No	—	Deer/elk sp/f	I	1/1
0244	Cable Gulch	No	Mod.-Low	Some	Mod.-Low	No	Low	No	Hi-Mod.	None	M	
0245	Sugarloaf	Significant	High	Significant	High	Significant	Mod.	Significant	Hi-Mod.	Deer wt/sp	I	1/1
0246	Boomerang	Some	Mod.	Some	Mod.	Minor	Mod.	Minor	Hi-Mod.	Deer wt/sp	M	
0247	Rawhide	Some	Mod.-Low	Some	Low	Significant	Mod.	Minor	Mod.	Deer wt/sp	I	1/2
0248	Little Boulder	Some	Mod.-Low	Some	Hi-Mod.	Some	Mod.	Minor	Hi-Mod.	Elk/deer wt/sp	I	2/2
0249	Muskrat	Significant	High	Some	Mod.	Significant	Mod.	Significant	Hi-Mod.	High wildlife	I	1/1
0250	Millegan Common	No	Mod.-Low	Some	Low	No	Low	—	—	None	M	
0251	Nineteen Mile	Minor	Mod.	No	Low	No	Mod.	—	—	None	C	
0252	Gregor Mountain	Significant	Hi-Mod.	Some	Mod.	Some	Low	—	—	None	M	
0253	Dutchman Creek	No	Mod.	Some	Low	Minor	Low	No	Low	Deer/elk	M	
0254	Free Coinage	Some	Mod.-Low	No	Mod.	Minor	Low	—	—	Pot. turkey transplant	M	
0255	Clancy Gulch	Some	Mod.-Low	No	Mod.	Minor	Mod.	Some	Hi-Mod.	Some elk use	M	
0256	Spokane Creek	No data	No data	No	Low	No	N/A	—	—	None	C	
0257	Lump Gulch	No	Mod.-Low	No	Mod.	Some	Mod.	Minor	Hi-Mod.	Good fishery elk wt/sp	M	
0258	Ringing Rocks	No	Mod.-Low	Significant	Hi-Mod.	Significant	Mod.	—	—	Elk/deer wt.	I	1/2
0259	Rear Place	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
0260	Wickman Field	No	Mod.-Low	Significant	Hi-Mod.	Minor	Low	—	—	None	C	
0261	Flood Place	No	Mod.-Low	No	Mod.	Significant	Mod.	—	—	Antl. wt/sp	I	1/2
0262	Wood Gulch	No	Mod.-Low	No	Low	No	Low	—	—	None	M	
0263	Buffalo Creek	No	Mod.-Low	Some	Mod.	Some	Mod.	Significant	Hi-Mod.	Good fishery	I	1/2
0264	Huller Spring	Some	Mod.	Some	Mod.-Low	Some	Mod.	Significant	Hi-Mod.	Elk/deer wt.	I	1/2
0265	T4N, R2W, Sec. 6	Significant	Mod.	No	Low	Minor	Low	—	—	None	C	
0266	Elkhorn Creek	No	Mod.-Low	No	Low	Minor	Low	—	—	Deer/elk	M	
0267	Allotment deleted, combined with #7720											
0269	Corbin	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
0270	Black Jack	No	Mod.-Low	Some	Low	Minor	Low	—	—	None	C	
0271	Sappington Spring	Minor	Mod.	Some	Mod.-Low	Significant	Mod.	—	—	Elk/deer	I	2/2
0272	Riverside School	No data	Mod.-Low	Some	Mod.-Low	No	Mod.-Low	—	—	Antelope	M	
0273	Limestone Hills	Significant	Mod.	Significant	Mod.-Low	Significant	Hi-Low	Significant	Hi-Mod.	Mule deer	I	1/1
0274	Rattlesnake Creek	Minor	Mod.	Some	Mod.	Some	Mod.-Low	No	Mod.	Antelope	M	
0275	Cottonwood Common	Minor	Mod.	No	Low	Some	Hi-Mod.	Significant	Hi-Mod.	None	M	
0277	Browns Gulch SGC	Significant	Mod.	No	Low	Minor	Low	—	—	Deer wt range	C	
0278	Hill & Wilkerson	Minor	Low	No	Low	No	Low	—	—	None	C	
0279	Bald Hills	Minor	Mod.-Low	Significant	Mod.-Low	No	Low	No	Hi-Mod.	Antl.	M	
0280	Willow Spring	No	Mod.-Low	?	?	Minor	Low	—	—	None	C	
0281	Limestone East	Some	Mod.	Significant	Mod.-Low	Significant	Hi-Mod.	Significant	Hi-Mod.	Antl./elk	I	1/1
0282	Sumitt	Minor	Mod.	Some	Mod.-Low	Some	Mod.	—	—	Mule deer	I	1/2
0283	Jack Mountain	No	Mod.-Low	No	Mod.	Minor	Low	—	—	Moose/ Deer/ Elk	M	
0284	Copper City	Significant	Mod.	Some	Hi-Mod.	Significant	Hi-Mod.	—	—	Sage grouse/ antelope	I	1/1
0285	Cottonwood	No	Mod.-Low	No	Low	Significant	Mod.	Significant	Mod.	Potential B. sheep	I	1/2
0286	Smith Individual	No data	Low	No	Mod.-Low	No	Mod.-Low	—	—	Antelope	C	
0287	Horse Gulch	Significant	Hi-Mod.	Some	Low	Some	Mod.	—	—	Deer wt. use	I	1/1
0288	Sunlight	Minor	Mod.-Low	No	Low	No	Low	—	—	None	M	
0289	Little Butte	No	Mod.-Low	No	Low	No	Low	—	—	Antelope	C	
0290	Jackson Creek	No	Mod.-Low	No	Low	Minor	Low	Minor	Hi-Mod.	None	C	
0291	Lower Johnny Gulch	No	Mod.-Low	Some	Low	No	Low	—	—	None	C	
0292	Ralls Mines	No	Mod.-Low	Some	Low	No	Low	—	—	None	C	

TABLE M-1
RESOURCE CONDITIONS/CONFLICT

No.	Allotment Name	Change needed in veg. cond. &/or prod.	Potential of veg. to respond	Change needed in watershed conditions	Potential of watershed to respond	Change needed in wildlife hab. cond.	Potential of habitat to respond	Change needed in rip. area condition	Potential of rip. areas to respond	Special areas of concern	Tent. mgmt. categ.	Priority for proposed AMP allotment (wild./ran.)
0293	Lone Mountain	Minor	Mod.	Some	Low	No	Low	—	—	None	M	
0294	Rattlesnake	No	Mod.	Some	Low	Some	Low	Some	?	Antl./ elk/deer	I	1/2
0295	W. Keating Gulch	Minor	Mod.	No	Mod.-Low	No	Low	—	—	Antelope	M	
0296	Section 33	Minor	Low	No	Mod.-Low	Some	Mod.-Low	—	—	Mule deer	M	
0297	South Beacon	No	Mod.-Low	No	Mod.	Minor	Low	—	—	Deer	C	
0298	Little Butte	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
0299	Dry Hollow	Minor	Mod.	No	Low	No	Low	—	—	None	C	
0358	Spring	Significant	Mod.	No	Low	Significant	Mod.-Low	—	—	None	I	2/1
0359	Farnham Creek	No	Low-None	No	Low	Minor	Low	—	—	None	C	
0360	Beavertown Creek	No	Mod.-Low	No	Low	Significant	Hi-Mod.	—	—	None	C	
0372	Rader	No	Mod.-Low	No	Low	No	Low	—	—	Deer	C	
0373	Pipestone	Significant	Mod.	Significant	Hi-Mod.	Significant	Mod.	—	—	Deer	I	1/1
0375	East & West	Significant	Mod.-Low	Some	Mod.-Low	Significant	Mod.	—	—	Deer/antl./s. gr.	I	1/1
0376	Toston Canal	Significant	Mod.-Low	Significant	Mod.-Low	Significant	Hi-Mod.	—	—	Elk/S. gr.	I	1/1
0381	Dunbar Springs	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Deer & elk	M	
0382	Deer Park	No	Low	Some	Low	No	Low	Minor	Hi-Mod.	None	C	
0383	Roy Gulch	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Elk/deer	M	
0384	Upper Sixteen	No	Low	No	Low	Minor	Low	Minor	Low	Fishery	M	
0387	Sixteen Mile	Minor	Mod.-Low	Some	Mod.-Low	No	Hi-mod.	No	Hi-Mod.	Elk/fishery	M	
0389	Madison Buffalo	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
0391	Big Davis Gulch	No	Mod.-Low	No	Low	Minor	Low	—	—	Elk	C	
0392	Garden Gulch	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Elk	M	
0396	N. Duck Creek	No	Low	Some	Low	No	Low	—	—	Turkey/mule deer	C	
0397	Ingleside Quarr	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
0398	Sixmile	Minor	Mod.-Low	Some	Mod.-Low	Significant	Mod.	—	—	None	I	1/2
0401	Confederate Gulch	Significant	Hi-Mod.	Some	Mod.-Low	Some	Hi-Mod.	No	Hi-Mod.	Elk/deer	I	1/1
0402	Hidden Hollow	No	Mod.-Low	No	Low	No	Mod.	—	—	Deer	C	
0403	Iverson (Broad. Co. Only)	Minor	Mod.	No	Low	Some	Low	Minor	Mod.	Deer	C	
0409	Rocky	No	Low	Significant	Mod.-Low	No	Low	No	Hi-Mod.	None	C	
0411	N. Sixmile	No	Mod.-Low	No	Low	Some	Low	—	—	None	C	
0414	Pole Gulch	Significant	Mod.	No	Mod.-Low	Significant	Hi-Mod.	Significant	Hi-Mod.	Elk	I	1/1
0419	Little Rocky CA	No	Mod.-Low	No	Mod.-Low	Minor	Hi-Mod.	No	Hi-Mod.	Deer/elk	C	
0423	Shadoan Sawmill	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
0424	Greysun Creek	No	Mod.-Low	Minor	Low	Some	Mod.	Significant	Hi-Mod.	Elk/deer/fish	I	1/2
0425	Wall Mountain	No	Mod.-Low	No	Mod.-Low	No	Hi-Mod.	—	—	Elk calving	M	
0426	Lower Duck Cr.	No	Mod.-Low	No	Mod.-Low	No	Mod.	No	Hi-Mod.	None	M	
0427	Galt (T8N, R5E)	?	?	Some	Low	Some	Low	—	—	Antelope	C	
0429	Galt (T10N, R1E)	?	?	Some	Low	Some	Low	—	—	None	C	
0439	Klondike Claim	No	Low	No	Mod.-Low	No	Hi-Mod.	No	Hi-Mod.	Deer/elk	M	
0441	Spring Creek	No	Mod.-Low	No	Low	Minor	Low	No	?	None	C	
0442	Upper Dry Creek	No	Mod.-Low	No	Low	No	Low	—	—	None	C	
0445	Round Grove	No	Mod.-Low	No	Low	No	Low	—	—	None	C	
0446	Ray Creek	No	Mod.-Low	No	Low	No	Low	—	—	None	C	
0548	Cottonwood Gulch	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
1018	Little Hellgate	No	Mod.-Low	No	Mod.-Low	No	Low	—	—	None	C	
1160	Deep Creek (USFS)	No data	?	Some	Mod.-Low	?	?	?	?	None	C	
3101	East Trident	No	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
5400	W. Dexter Point	No	Low-None	No	Mod.	Minor	Mod.	—	—	Elk	C	
5402	CL&D Arthun	?	?	No	Low	Minor	Mod.	—	—	Sage gr.	M	

5410	Miner Creek	Minor	Low-None	No	Low	Minor	Mod.	Minor	Mod.	Moose	C	
5412	Gold Run Creek	Minor	Mod.-Low	Some	Mod.	Some	Mod.	Significant	Mod.	Elk/deer	I	1/2
5415	Bracket Creek GR	?	Unknown	No	Low	Minor	Low	—	—	Deer sp/su/fa	C	
5420	Suce Creek	Not feas.	Low-None	No	Low-Mod.	Minor	Mod.	—	—	Mule deer wt	C	
5421	North Fork	Not feas.	Low-None	No	Low	Minor	Low	—	—	Deer wt	C	
5430	Gaging Station	Not feas.	Low-None	No	Low	Minor	Low	—	—	Deer wt/sp	M	
5433	Sheep Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Elk wt/sp	C	
5436	Soldier Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
5442	Falls Creek	Minor	Mod.-Low	No	Low	Minor	Mod.	—	—	Mule deer wt	C	
5445	McAdows Canyon	Minor	Mod.-Low	No	Low	Minor	Mod.	Significant	Mod.	Fishing	M	
5447	North Fiddle Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Mule deer & sage gr. wt	C	
5452	Wineglass Mountain	Minor	Mod.-Low	No	Low	Minor	Low-Mod.	—	—	Deer/elk yl.	M	
5462	Ferry Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Deer wt/sp	C	
5469	Work Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
5472	Willow Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
5482	Duck Creek	Minor	Mod.-Low	No	Low	Minor	Low	Minor	Mod.	Fishing	C	
5487	Quinn Creek	Minor	Mod.-Low	No	Low	Minor	Low	Minor	Mod.	Deer/elk yl.	C	
5489	LV Quarter C	?	?	No	Low	Minor	Mod.	—	—	Deer/antl. wt	M	
5493	George E. Martin	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Deer wt	M	
5496	Green Mountain	Minor	Mod.-Low	No	Low	Minor	Low	No	Mod.	Deer yl/B. sheep fa	M	
5497	Grizzly Creek	Minor	Mod.-Low	No	Low	Minor	High	—	—	Deer yl	C	
5505	Airport	Minor	Mod.-Low	No	Low	Minor	Mod.	—	—	Crucial antl. wt/sp	I	1/2
5506	Strickland Creek	Minor	Low-None	No	Low	Minor	Low	—	—	Deer/moose wt/sp	C	
5507	6 Mile	Minor	Mod.-Low	Some	Hi-Mod.	Significant	Mod.	—	—	Crucial elk wt/sp	M	
5508	Eagle Creek	Not feas.	Low-None	No	Low	Minor	Mod.	No	Mod.	Deer wt/moose yl	M	
5518	Wayne Peterson	Minor	Mod.-Low	No	Low	Minor	Mod.	—	—	Crucial deer wt.	C	
5519	Slaughterhouse	Minor	Mod.-Low	No	Low	Minor	Low-Mod.	No	Mod.	Elk/deer wt/sp	M	
5521	Locke Creek	Minor	Mod.-Low	No	Low	Minor	Mod.	No	Mod.	Deer/elk yl	C	
5526	Redfield Lake	No	Mod.-Low	No	Mod.	Minor	Mod.	No	Mod.	Deer wt/sp	C	
5529	Chuck Reid	Minor	Mod.-Low	No	Low	Minor	Mod.	No	High	Fishery	M	
5531	Ellis Basin	Minor	Mod.-Low	No	Low	Minor	Mod.	—	—	Crucial elk wt/sp	M	
5538	Yellowstone	Minor	Mod.-Low	No	Low	Minor	Hi-Mod.	No	Mod.	Crucial elk wt/sp waterfowl	C	
5539	South Fiddle Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
5551	Poison	Significant	Low	No	Low	Minor	Mod.-Low	—	—	Antelope wt	M	
5563	Donald Wood	Minor	Mod.-Low	No	Low	Minor	Low	No	Mod.	Fishery	M	
5575	Lower Mission C	Minor	Mod.-Low	No	Low-Mod.	Minor	Hi-Mod.	No	Hi-Mod.	Fishery	M	
5577	Hot Springs	Minor	Mod.-Low	No	Low	No	Mod.	—	—	None	C	
5579	Chadbourne	No	Mod.-Low	No	Low	Minor	Low	—	—	Antelope yl.	C	
5583	Carbella	Minor	Mod.-Low	No	Low	Significant	Mod.	Significant	Hi-Mod.	Elk wt/sp	M	
6303	Chicken Coulee	Minor	Hi-Mod.	No	Mod.	Minor	Hi-Mod.	Significant	Hi-Mod.	Griz., goat, deer, sheep	I	1/1
6304	Choteau Mtn.	Not feas.	Low	No	Mod.	Minor	Hi-Mod.	No	Hi-Mod.	Griz./deer	M	
6306	Cowtrack	No	Hi-Mod.	No	Mod.	Minor	Hi-Mod.	No	Hi-Mod.	Sheep/deer	M	
6307	East Front	Significant	Hi-Mod.	Significant	Hi-Mod.	Significant	Hi-Mod.	Significant	Hi-Mod.	Griz., deer, sheep, goat	I	1/1
6308	Sun River	Minor	Hi-Mod.	No	Low	Minor	Hi-Mod.	Minor	Hi-Mod.	Deer, sheep	M	
6312	Tunnel Lake	Significant	Mod.-Low	Minor	Low	Significant	Hi-Mod.	Significant	Hi-Mod.	Waterfowl	I	1/1
6313	Black Coulee	Not feas.	Mod.-Low	Not feas.	Low	Significant	Low	—	—	Grouse/antl.	C	
6315	Reservoir - (Teton Co. Pasture)	Not feas.	Mod.-Low	Not feas.	Low	Minor	Low	—	—	None	C	

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6315	Reservoir - (L&CCo. Pasture)	Minor	Mod.-Low	—	—	Minor	Mod.	—	—	Antelope	M	
6316	Farmers Reserve	Not feas.	Mod.-Low	Not feas.	Low	Minor	Low	—	—	None	C	
6317	Freezeout West	Not feas.	Mod.-Low	Not feas.	Low	Minor	Mod.	—	—	Pheas./ sharptail	M	
6318	Anderson Coulee	Not feas.	Low	Not feas.	Low	Minor	Low	—	—	None	C	
6319	Roundup Coulee	Not feas.	Mod.-Low	Not feas.	Low	Significant	Hi-Mod.	—	—	Pheas./ sharptail	C	
6320	Waddel Lakes	Not feas.	Mod.-Low	Not feas.	Low	Significant	Hi-Mod.	Minor	Low	Waterfowl	C	
6321	Swift Dam	Not feas.	Mod.-Low	Not feas.	Low	Minor	Low	Minor	Low	None	C	
6322	East Birch Creek	Not feas.	Mod.-Low	Not feas.	Low	Minor	Low	Minor	Low	None	C	
6323	West Birch Creek	Not feas.	Low-Mod.	Not feas.	Low	Minor	Low	Minor	Low	None	C	
6324	Homesite	Not feas.	Mod.-Low	Not feas.	Low	Minor	Low	Minor	Low	None	C	
6326	South Canal Ditch	Minor	Low-Mod.	Not feas.	Low	Minor	Low	—	—	None	C	
6327	Sun River Ditch	Minor	Low-Mod.	Not feas.	Low	Minor	Low	—	—	None	C	
6328	Simms Creek	Minor	Mod.-Low	Not feas.	Low	Minor	Hi-Mod.	—	—	None	C	
6329	Blackfeet Gulch	Minor	Mod.-Low	Not feas.	Low	Minor	Low	—	—	None	C	
6330	Ryan Coulee	Minor	Mod.-Low	Not feas.	Low	Minor	Low	—	—	None	C	
6331	Lower Flat Creek	Minor	Mod.-Low	Minor	Low	Minor	Hi-Mod.	—	—	Deer/elk	C	
6332	Big Eddy	Minor	Mod.-Low	Minor	Low	Minor	Low	—	—	Sharptail gr.	C	
6334	Hardy Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Deer, elk	M	
6336	Hardy	Minor	Mod.-Low	Not feas.	Low	Minor	Low	—	—	Deer, elk	C	
6337	Tintinger Slough	Minor	Hi-Mod.	Not feas.	Low	Minor	Hi-Mod.	No	Mod.	Bald eagle	C	
6338	Upper Flat Creek	Minor	Mod.-Low	Not feas.	Low	Minor	Low	—	—	None	C	
7544	Big Gold Run Creek	Minor	Mod.-Low	No	Low	Minor	Hi-Mod.	Significant	Mod.	Crucial elk wt/sp	I	1/2
7577	Area Creek	Minor	Mod.	No	Hi-Mod.	Minor	Mod.	No	Mod.	Elk/deer yl	C	
7601	Little Creek	Not feas.	Low	No	Hi-Mod.	Minor	Mod.	Minor	Hi-Mod.	Deer	M	
7602	Rogers Creek	Not feas.	Low	No	Hi-Mod.	Minor	Hi-Mod.	Minor	Hi-Mod.	Elk	M	
7603	Middle Fork Dearborn	Not feas.	Low	No	Hi-Mod.	Significant	Mod.	Minor	Hi-Mod.	Grizzly	M	
7604	Rock Creek	Minor	Mod.-Low	No	Hi-Mod.	Minor	Low	—	—	Elk winter	C	
7605	Bean Lake	Minor	Low	No	Hi-Mod.	Minor	Hi-Mod.	Minor	Hi-Mod.	Griz., elk, deer	M	
7606	Dearborn River	Minor	Mod.-Low	No	Hi-Mod.	Minor	Hi-Mod.	Minor	Hi-Mod.	Grizzly	M	
7607	Roost Hill	Minor	Mod.-Low	No	Hi-Mod.	Minor	Hi-Mod.	Minor	Hi-Mod.	Grizzly, elk	M	
7608	Willow Creek	Not feas.	Mod.-Low	No	Hi-Mod.	Minor	Hi-Mod.	—	—	None	C	
7609	Black Reef	Minor	Hi-Mod.	No	Low	Significant	Hi-Mod.	Significant	Hi-Mod.	Waterfowl	I	1/1
7610	Pothole	Not feas.	Low-None	No	Hi-Mod.	Significant	Hi-Mod.	Significant	Hi-Mod.	Waterfowl	I	1/2
7612	Willow Creek Canal (L&C Co. Pasture)	Minor	Hi-Mod.	No	Low	Significant	Hi-Mod.	Minor	Hi-Mod	Mule deer	I	1/2
7612	Willow Creek Canal (Teton Co. Pasture)	Not feas.	Mod.-Low	—	—	Minor	Hi-Mod.	Minor	Hi-Mod	None	C	
7613	Alkali Flat (L&C Co. Pasture)	Significant	Hi-Mod.	No	Low	Significant	Hi-Mod.	—	—	Deer	I	1/1
7613	Alkali Flat (Teton Co. Pasture)	Minor	Hi-Mod.	Not feas.	Mod.	Significant	Hi-Mod.	Minor	Hi-Mod	B. sheep/ deer	I	1/2
7614	Florence Canal	Not feas.	Hi-Mod.	No	Low	Minor	Low	—	—	None	C	
7659	Indian Head Rock	Not feas.	Low-None	Not feas.	Low	Minor	Low	No	Hi-Mod.	Grizzly	C	
7671	Andy Creek	Minor	Mod.-Low	Minor	Low	Minor	Hi-Mod.	Minor	Mod.	Deer, elk	M	
7701	Cox Creek (Cascade Co. Pasture)	Not feas.	Low-None	Not feas.	Low	Minor	Low	—	—	None	C	
7701	Cox Creek (L&C Co. Pasture)	Not feas.	Low	—	—	Minor	Low	—	—	Deer	C	

7702	Stickney Creek	Not feas.	Low	—	—	Minor	Low	—	—	Deer	C	
7703	Holter Lake	Minor	Mod.-Low	No	Hi-Mod.	Minor	Low	—	—	None	C	
7704	Oxbow (includes Towhead Gulch)	Significant	Mod.-Low	No	Hi-Mod.	Significant	Hi-Mod.	Significant	Mod.	Sheep, elk, deer, bear	I	1/1
7705	Sheep Creek	Significant	Mod.-Low	No	Hi-Mod.	Minor	Low	Minor	Hi-Mod.	Deer	M	
7706	Burke Creek	No	Low	No	Low	—	—	—	—	—	C	
7707	Spring Gulch	Not feas.	Low	No	Hi-Mod.	Significant	Mod.	—	—	Elk, deer	M	
7709	Sieben Ranch	Minor	Mod.-Low	No	Hi-Mod.	Significant	Hi-Mod.	Significant	Hi-Mod.	Deer, elk	M	
7710	Hilger Hills	Minor	Mod.-Low	No	Hi-Mod.	Minor	Hi-Mod.	Minor	Mod.-Low	Deer, fishery	M	
7711	Prickly Pear Peak	Significant	Mod.-Low	—	—	Minor	Low	—	—	Fishery, bald eagle	M	
7713	Danas Bar	Significant	Mod.-Low	No	Low	Significant	Mod.	—	—	Deer	I	1/1
7714	Mt. Bend-Powerline	Minor	Mod.-Low	—	—	Significant	Mod.	—	—	Deer	I	1/2
7715	Centennial Gulch	Significant	Hi-Mod.	—	—	Significant	Mod.	Minor	Low	Turkey, deer	I	1/1
7716	Cottonwood Creek	Minor	Mod.-Low	—	—	Minor	Low	Minor	Low	Elk	C	
7718	Wickiup Creek	Minor	Hi-Mod.	—	—	Significant	Hi-Mod.	Significant	Hi-Mod.	Elk, deer	I	1/2
7719	Sheriff Gulch	Minor	Mod.-Low	No	Hi-Mod.	Significant	Mod.	—	—	Deer, elk	I	1/2
7720	Spokane Hills	No	Mod.	Significant	Mod.	No	Hi-Mod.	—	—	Osprey	M	
7762	Toms Gulch	Minor	Low	No	Low	Minor	Low	—	—	None	M	
7775	Willow Creek	Minor	Low	No	Low	Minor	Hi-Mod.	Minor	Hi-Mod.	Deer, elk	M	
7801	Deer Creek	Minor	Mod.-Low	—	—	Minor	Low	—	—	None	C	
7802	Virginia Creek	Minor	Mod.-Low	No	Hi-Mod.	Minor	Mod.	Minor	Hi-Mod.	Deer, elk, fish	M	
7803	Deadman	Minor	Mod.	No	Low	—	—	—	—	Noxious weeds	I	2/2
7804	Empire Creek	Significant	Hi-Mod.	No	Hi-Mod.	Significant	Mod.	Significant	Hi-Mod.	Deer, grouse, riparian	I	1/1
7805	Gravelly Range Lake	Not feas.	Mod.-Low	—	—	Minor	Mod.	—	—	Elk, deer	C	
7806	Ogilvie Gulch	Significant	Hi-Mod.	No	Hi-Mod.	Significant	Mod.	Significant	Mod.	Deer, elk	I	1/1
7807	Beartrap Gulch	Not feas.	Low	No	Hi-Mod.	Minor	Low	—	—	Deer/elk	C	
7808	Lost Horse Creek	Minor	Mod.-Low	Significant	Hi-Mod.	Significant	Mod.	Minor	Mod.	Elk	I	1/2
7809	Gloster	Significant	Mod.-Low	—	—	Significant	Mod.	Significant	Mod.	Elk, deer	I	1/1
7810	Edwards Mountain	Significant	Hi-Mod.	No	Low	Significant	Mod.	—	—	Deer, elk	I	1/1
7811	Drumlummon-Skelly	Minor	Hi-Mod.	No	Low	Significant	Mod.	Significant	Hi-Mod.	Deer, elk	I	1/2
7813	Marysville	Significant	Hi-Mod.	No	Hi-Mod.	Minor	Hi-Mod.	Significant	Hi-Mod.	Grouse, riparian	I	1/1
7814	Park Gulch	Minor	Mod.-Low	—	—	Minor	Hi-Mod.	—	—	None	C	
7815	Willit Ridge	Not feas.	Low	—	—	Minor	Low	—	—	None	C	
7816	St. Louis Gulch	Minor	Mod.-Low	—	—	Minor	Low	—	—	None	M	
7817	Spring Gulch	Minor	Mod.-Low	—	—	Minor	Low	—	—	None	C	
7818	Skelly Gulch	Minor	Mod.	Significant	Low	Some	Hi-Mod.	Mod.	Hi-Mod.	Deer	I	2/2
7819	Iron Ridge	Minor	Mod.-Low	—	—	Minor	Low	—	—	None	C	
7820	Greenhorn Gulch	Minor	Mod.-Low	—	—	Minor	Low	—	—	None	C	
7821	War Eagle Hill	Minor	Mod.-Low	—	—	Minor	Low	—	—	None	M	
7822	Iowa Gulch	Minor	Mod.-Low	No	Low	Minor	Mod.	—	—	Antelope	I	1/2
7823	Iron Siding	Significant	Mod.	No	Hi-Mod.	Some	Mod.	—	—	Antelope	I	1/1
7824	Granite Creek	Significant	Mod.	Significant	Mod.-Hi	Some	Mod.	—	—	Deer	I	1/2
7825	Dog Creek	Minor	Mod.-Low	—	—	?	?	?	?	?	C	
7826	Ten Mile Creek	Not feas.	Mod.-Low	—	—	Minor	Low	—	—	Deer	C	
7827	Blue Cloud	Significant	Mod.	Significant	Low	Significant	Mod.	Significant	Mod.	Antelope, deer	I	1/1
7828	Sevenmile	Not feas.	Low	—	—	No	Low	—	—	None	C	
7829	Colorado Gulch	Minor	Mod.-Low	—	—	Some	Mod.	—	—	Elk	C	
7830	East Scratchgravel	Minor	Mod.-Low	Significant	Low	Minor	Mod.	—	—	None	M	
7831	Ford Coulee	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
7832	Tiger Butte	Not feas.	Low-None	No	Low	Minor	Low	—	—	Deer	C	
7833	West Jackson Creek	Minor	Low	No	Mod.	Minor	Low	Minor	Mod.-High	None	C	
7940	Delmoe	Minor	Mod.	No	Low	No	Low	—	—	None	C	
7948	Toston	Not feas.	Low	No	Low	Minor	High	Minor	High	Bald eagle	C	
7958	Noel	No data	No data	No	Low	Minor	Mod.	—	—	None	C	
7959	Buffalo Hump	No	Mod.-Low	Some	Mod.	Minor	Mod.	Significant	Hi	Trout fishery	I	1/2
7960	Whitetail Creek	Significant	Mod.-Low	Some	Low	Significant	Mod.	Significant	Mod.	Elk, deer, antl.	I	1/1
7961	Mills	Some	Low	No	Low	No	Low	—	—	None	C	

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9651	Smith River	Minor	Mod.-Low	No	Low	Minor	Low	—	Hi-Mod.	Bald eagle, deer, elk	M	
9655	So. Fork Sheep Cr.	Minor	Low	No	Low	Minor	Hi-Mod.	Minor	Hi-Mod.	Deer, fishery	M	
9660	Divide Creek	Significant	Mod.	No	Low	Significant	Mod.	Significant	Mod.	Upland game	I	1/1
9663	Coyote Creek	?	?	No	Low	Minor	Mod.	No	Mod.	Deer, elk	M	
9671	Gipsy Creek	?	?	No	Low	Minor	Mod.	No	Mod.	Moose yl	C	
9672	Eagle Creek	?	?	No	Low	Minor	Mod.	Significant	Mod.	None	I	1/2
9674	No. Fork Musselshell	?	?	No	Low	Minor	Mod.	No	Mod.	None	M	
9675	Daisy Dean Creek	?	?	No	Low	Minor	Mod.	Significant	Mod.	None	C	
9676	Trout Creek	Minor	Mod.-Low	No	Low	Minor	Hi-Mod.	No	Hi-Mod.	Bald eagle, mule deer	C	
9677	Lower Smith River	Minor	Mod.-Low	No	Low	Minor	Hi-Mod.	No	Hi-Mod.	Deer, elk, bald eagle	C	
9688	Crooked Creek	?	?	No	Low	Minor	Mod.	Significant	Mod.	None	C	
9690	Sixteen	?	?	No	Low	Minor	Low	—	—	None	C	
9697	West Fork Mud Creek	?	?	No	Low	Minor	Mod.	—	—	None	M	
9698	Smith Creek	Significant	Mod.	Mod.	Low	Minor	High	Significant	Mod.	Fishery	I	1/1
9699	So. Fork Smith	?	?	No	Low	Some	Mod.	Significant	Mod.	Deer wt	M	
9704	Middle Creek	Minor	Mod.-Low	No	Low	Minor	Low	Significant	Low	Elk	M	
9708	Little Elk Creek	?	?	No	Low	Significant	Mod.	Significant	Mod.	Riparian	I	2/2
9709	Devil Canyon	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Deer	C	
9710	Belt Creek	Minor	Mod.-Low	Minor	Low	Minor	Hi-Mod.	—	—	Elk, deer	M	
9715	Ming Coulee	Minor	Low-None	No	Low	Minor	Low	—	—	Deer	C	
9722	Monarch	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Deer	C	
9723	Black Butte	Minor	Hi-Mod.	No	Low	Minor	Hi-Mod.	—	—	Elk, deer	M	
9726	No. Fork Sheep Creek	Minor	Mod.-Low	No	Low	Minor	Low	No	High	Mule deer	M	
9728	Deer Creek	?	?	No	Low	Minor	Low	—	—	None	C	
9732	Little Sulphur Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
9733	Martinsdale	Minor	Mod.-Low	No	Low	Minor	Mod.	—	—	Deer wt/sp	C	
9735	Holliday L&L	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
9739	Cottonwood Creek	Minor	Mod.-Low	No	Low	Minor	Mod.	—	—	Deer/sage grouse wt/sp	M	
9743	Johnston	Minor	Mod.-Low	No	Low	Significant	Mod.	Significant	Mod.	Wild turkey/ deer/elk, wt/sp	I	1/2
9747	Hound	Minor	Mod.-Low	—	—	Significant	Hi-Mod.	—	—	Elk	I	1/2
9758	Footstool Butte	Minor	Mod.-Low	No	Low	Minor	Mod.	Minor	Mod.	Deer/elk wt/sp	M	
9780	W. Fork Hound Creek	Minor	Low-None	Minor	Low	Minor	Low	—	—	Mule deer/elk	C	
9800	Elk Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	None	C	
9801	Rhynard Ind.	Minor	Mod.-Low	Not feas.	Low	Minor	Low	—	—	None	C	
9804	Sheep Creek	Minor	Mod.-Low	Not feas.	Low	Minor	Low	—	—	None	C	
9806	Water Tank Smith River	Minor	Mod.-Low	No	Mod.	Minor	Hi-Mod.	—	—	Elk/deer	M	
9810	71 Ind.	Minor	Mod.-Low	No	Low	Minor	Hi-Mod.	Minor	High	Riparian	M	
9812	Bird Creek	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Elk	C	
9814	Battle Creek	Minor	Mod.-Low	No	Low	Minor	Mod.	Minor	Mod.	Sage grouse wt	M	
9818	Windy Hollow	Minor	Mod.-Low	No	Mod.	Minor	High-Mod.	?	?	Deer & elk	M	
9820	Sand Coulee	Minor	Low-None	No	Low	Minor	Low	—	—	Deer	C	
9822	Goat Mountain	Minor	Mod.-Low	Significant	Hi-Mod.	Significant	Hi-Mod.	Minor	Mod.	Elk/deer	M	
9823	Smith River North	Minor	Low-None	No	Mod.	Minor	Low	?	?	Bald eagle	M	
9836	Lower Sand Coulee	Minor	Mod.-Low	No	Low	Minor	Low	—	—	Deer	M	
9846	Bozeman Fork	Minor	Mod.-Low	No	Low	Minor	Low	Minor	Mod.	Deer wt	C	

9849	Black Canyon	Minor	Mod.-Low	Significant	Low	Significant	Low	Minor	Mod.	Deer yl	M
9851	Morris Creek	Minor	Mod.-Low	No	Low	Minor	Low	Minor	Mod.	Elk/deer wt	C
9857	Smith River	Minor	Mod.-Low	No	Low	Minor	Mod.	No	Mod.	Riparian	M
9859	N. Lake Sutherlin	Minor	Mod.-Low	No	Low	Minor	Mod.	No	Mod.	Sage grouse	M

TABLE M-2

PROBLEMS, OPPORTUNITIES AND OBJECTIVES FOR GRAZING MANAGEMENT

Situation	Management Action
Grazing season and selective grazing habits of different kinds of livestock can reduce the quality and quantity of vegetation produced by a plant community.	Change the season of use and/or the class or kind of livestock.
	Implement rotational grazing systems that will provide for plant maintenance requirements.
Livestock use can be poorly distributed within an allotment or pasture. This can result in heavy utilization of some sites while others may receive little or no grazing use.	Develop new sources of water to distribute livestock more evenly.
	Construct drift fences to alter traditional grazing patterns.
	Specify placement of salt and mineral supplements.
	Require herding of livestock.
	Authorize the class or kind of livestock that will best utilize the allotment.
Current levels of livestock use may exceed the carrying capacity of an allotment.	Monitor actual livestock use and resulting levels of utilization to determine the proper carrying capacity.
Some sites that are now producing a quality and quantity of forage well below their potential have a poor potential to respond to changes in grazing management alone.	Restore productivity of these sites through mechanical treatment and/or seeding with native species or well-adapted introduced species.
Investments in range improvements needed to implement changes in grazing management often do not have favorable benefit/cost ratios.	Solicit contributions from range users and other parties benefiting from changed grazing management.
	Design grazing management systems that require a minimum investment in range improvements, but will meet the stated objectives.
Plant and animal pests can adversely affect livestock and vegetative productivity.	In cooperation with other affected land owners, take actions to control concentrations of pests.

APPENDIX N

SHORT-TERM CHANGES IN STOCKING RATES FOR I ALLOTMENTS

(See Draft Environmental Impact Statement)

APPENDIX O
OIL AND GAS IMPACTS MODEL

(See Draft Environmental Impact Statement)

APPENDIX P

RANCH BUDGETS AND METHODOLOGY FOR ASSESSING RANCH-RELATED IMPACTS

(See Draft Environmental Impact Statement)

APPENDIX Q

IMPACTS OF COAL DEVELOPMENT IN CASCADE COUNTY

(See Draft Environmental Impact Statement)

APPENDIX R

WILDERNESS STUDY POLICY AND PLANNING CRITERIA

(See Draft Environmental Impact Statement)

APPENDIX S
ECOSYSTEM REPRESENTATION

(See Draft Environmental Impact Statement)

APPENDIX T
CRITERIA FOR DETERMINING SALE METHOD

Instruction Memorandum WO-83-524 describes the criteria to be used to determine the method of sale for parcels of public land.

United States Department of the Interior

2710 (310)

BUREAU OF LAND MANAGEMENT

IN REPLY
REFER TO:

May 10, 1983

EMS Transmission - 5/11/83
Instruction Memorandum No. 83- 524
Expires 9/30/84

To: All SD's and DM's

From: Director

Subject: Clarification of Policy - BLM Manual 2710 Public Sales .06 Policy

Public lands that are being considered for sale will occur in a variety of parcel sizes, shapes, sometimes isolated from other public lands and public access, by adjoining lands in one ownership. Some lands will be located near or within the influence of developing urban and suburban areas, near or adjacent to major transportation arteries and will clearly be within the areas of increasing land values. Other lands will be of sizeable blocks that have been under grazing use by one or more ranch units for a number of years and have become an integral part and essential to the continuation of family business livestock enterprises. Some lands may be suitable for residential or commercial development in a rural area that if sold and developed would place undue burdens on the local government for roads, schools, and other public services. Because of such a wide variety of uses, locations and landownership patterns, it is essential that we select a sale procedure that will minimize interruptions to present users and ongoing businesses dependent on the land, minimize impacts on existing land use and local governments, and at the same time maximize the value returned to the public interest.

When a parcel of land meets the sales criteria established in Section 203 of the Federal Land Policy and Management Act of 1976, several factors are considered in determining the method of sale. These include, but are not limited to: needs of State and/or local governments, adjoining landowners, public policies, historical uses, and the equitable distribution of land. The regulations in 43 CFR 2711.3-2 were designed to give the authorized officer substantial latitude in determining when and how to employ modified bidding or direct sale rather than competitive bidding. This latitude provides for the equitable distribution and consideration, preference to users, and consideration to the potential purchaser provisions of section 203.

The policy for determining the sale bidding method for offering lands for sale is:

1. Modified Competitive Bidding may be used to permit the existing grazing user or adjoining landowner to meet the high bid at the public auction or limiting the number of persons permitted to bid on the land. These would normally be lands not located near urban expansion areas or with rapidly increasing land values, when there is a need to avoid jeopardizing existing use of adjacent land, to assure compatibility of the possible uses with adjacent lands, and avoid dislocation of existing users. This procedure will allow for limited competitive bid to protect ongoing use.

2. Direct (without competition) Sales may be used when, in the opinion of the authorized officer, the public interest would best be served by a direct sale. Examples include but are not limited to:

- A tract identified for transfer to State or local governments or nonprofit organizations; or
- A tract identified for sale that is an integral part of a project of public importance and speculative bidding would jeopardize the timely completion and economic viability of the project; or
- There is a need to recognize authorized use such as an existing business which would be threatened if the tract were purchased by other than the authorized user; or
- A tract is surrounded by land in non-Federal ownership and does not have public access; or
- Inadvertent unauthorized use or occupancy of the land.

3. Competitive Bidding will be used where clearly there would be a number of interested parties bidding for the land and they could make practicable use of the land regardless of adjoining landownership, and where the land is clearly within a developing or urbanizing area and land values are increasing due to their location and interest on the competitive market. If there are no overriding bases for modifying competition or direct sale, the land will be offered through competitive bidding. Normal practice for competitive sales is to first offer the land for sale by auction then, if unsold, offer for sale over-the-counter or through realtor contract sale.

4, When lands have been offered for sale by direct or modified bidding procedure and they remain unsold, then the land will be re-offered by the competitive bidding procedure. In no case will the land be sold for less than fair market value.

Robert J Burford

APPENDIX U
ERRATA

The following is a list of changes that should be made in the text of the Draft RMP/EIS.

SUMMARY

Alternative B, Page v

In the third full paragraph on page v, the word habitat is misspelled.

CHAPTER 3

Visual Resources, Page 67

Add the following paragraph to the end of the discussion on visual resources:

> Scenic quality classes are considered along with visual sensitivity ratings, distance zones, and special area requirements in assigning public lands to visual resource management classes that then determine the different degrees of modification allowed to the landscape. The Headwaters Resource Area presently has no land assigned to Management Class I (see Chapter 2, Visual Resources, for definition of Management Classes). Approximately 10% of the resource area is within Management Class 2, including Holter and Canyon Ferry Lakes, the Yellowstone River corridor, portions of the Missouri River, the Devil's Kitchen area, and the Rocky Mountain Front. The remainder of the resource area consists of Management Class 3 and 4 lands.

Cultural Resources, Archeological Resources, Page 67

Add the following paragraph after the second paragraph of the Archeological Resources section:

> High rated sites refer to National Register sites that have extremely high research or interpretative values or more typically, National Register sites that are actively threatened by man-caused or natural erosion disturbance. Moderate rated sites include those sites that appear to be of National Register value but that are not threatened. Low rated sites are those having little potential for inclusion on the National Register.

Wilderness Opportunities, Opportunities in Montana, Page 70

The first sentence of the section entitled Opportunities in Montana should read:

> Montana contains 3,172,339 acres in fourteen designated wilderness areas, **1,928,709** acres in **forty-nine** presidentially endorsed areas, and 1,664,627 acres in sixty-one further study units.

Regional Wilderness Opportunities, Page 72

On the map, the areas shown in dark gray and an "S" are the Administratively Endorsed as Suitable areas. The areas shown in medium gray and a "U" are the Designated Wilderness areas.

Description of Individual Areas, Blind Horse Creek, Page 75

At the end of the second paragraph in the Blind Horse Creek section the phrase "its ability to be managed in an unimpaired condition" should be deleted and the following added:

> because it is of sufficient size to make practicable its preservation and use in an unimpaired condition.

Range Resources, Page 86

In the last sentence of the first paragraph of the Range Resources section the word livestock has been misspelled.

Range Resources, Page 88

In the first paragraph on page 88, the second full sentence should be changed to read:

> A substantial portion of the acreage in these allotments (21%) is unclassified.

In the third paragraph on page 88, the second sentence should read:

> Most allotments are comprised of intermingled **national forest,** state, private, and public land.

Fish and Wildlife Habitat, Riparian Habitat, Page 89

The first sentence of the second paragraph of the section on riparian habitat should read:

> Furbearers, including beaver, muskrat, mink, and otter; **reptiles and** amphibians, such as the rubber boa, garter snake, spotted frog, wood frog, and northern long-toed salamander; and large mammals, such as mule deer, white-tailed deer, moose, elk, black bear, grizzly bear, coyote, and wolf, utilize riparian habitat.

In the first paragraph on page 91 of this section the scientific name for the red dogwood *Cornus stolonifera* is misspelled.

Terrestrial Wildlife, Grizzly Bear, Page 93

The first full sentence on page 93 should read:

> As shown in Figure 3-3, **15,410 acres (71.8%) of the 21,470 acres** of grizzly bear habitat on public land are rated **good to excellent (satisfactory); the remaining 6,060 acres are rated** poor to fair (unsatisfactory).

CHAPTER 4

Impacts on Visual Resources, Page 133

Delete the sentence making up the Impacts on Visual Resources section and add the following sentence:

> Impacts to visual resources would be essentially the same as those described under Alternative A except for the Sleeping Giant area, which would remain in Management Classes 3 and 4 and thus could be subject to more visual impairments than under Alternative A.

Figure 4-3, Page 135

The columns describing Vegetative Condition should be labled from left to right: Excellent, Good, Fair, Poor.

Table 4-10, Page 136

At the end of Table 4-10 the information under the "Long-term riparian habitat cond. on I Allot. for Alternative B should read 61.75 satisfactory miles instead of 54.4; 89% satisfactory instead of 78%; 7.95 unsatisfactory miles instead of 15.3; and 11% unsatisfactory instead of 22%.

Impacts on Visual Resources, Page 141

Delete the sentence making up the Visual Resources section and substitute the following:

> Impacts to visual resources would be essentially the same as those described under Alternative A except for the areas recommended for wilderness designation, which would be elevated to Management Class 1 and thus would receive complete protection for visual resources.

Impacts on Range Resources, Page-143

The second sentence of the first paragraph on page 143 sould read:

> While the projection for an additional 1% of the acreage to be in poor condition when compared with the present may seem contradictory, it is **explained by** the fact that Alternative C strives to achieve wildlife, watershed, and vegetative conditions simultaneously.

Table 4-12, Page 144

In the first line of Table 4-12, the percent of satisfactory elk winter and spring habitat under current conditions should read 77 rather than 776.

Moose, Page 147

In the first sentence of the section entitled Moose, the 50% should be changed to 40%.

Impacts on Visual Resources, Page 149

Delete the sentence that makes up the section on visual resources and substitute the following:

> Impacts to visual resources would be essentially the same as those described under Alternative A except for the Sleeping Giant area, which would remain in Management Classes 3 and 4 and thus could be subject to more visual impairment than under Alternative A.

APPENDIX L

Summary of Wilderness Quality, Pages 268-9

The last sentence in the Summary of Wilderness Quality section should be deleted.

Table L-6, Page 280

In Table L-6, the seasons of use for the Sun River allotment is 7/1 to 8/31 instead of to 9/30.

Only a portion of the Sun River allotment lies within the Deep Creek/Battle Creek area.

Social and Economic Conditions, Public Comment, Page 281

The first sentence of the Public Comment section should read:

> The majority of comments favored **further study** for this unit.

Energy and Minerals, Page 282

The second sentence of the first paragraph of the Energy and Mineral section should read:

> The **stratigraphic** section in the WSA is a typical one for southwest Montana, ranging from the Precambrian Greyson shale through the **Permian** Phosphoria.

Alternative B: No Action, Page 290

In the last sentence of the first paragraph in the Alternative B: No Action section, 1,130 acres and should be changed to 920 acres.

APPENDIX P

Table P-2, Page 302

In Table P-2, the total value of cull cows should read 11,466.90 rather than 1,466.90.

Table P-3, Page 303

In Table P-3, the total value of cull cows should read 23,303.70 rather than 2,330.37.

GLOSSARY

Crucial Habitat, Page 316

The following sentence should be added to the end of the definition for crucial habitat:

> Crucial habitat may be limiting to the population size of a species.

APPENDIX V
COMMENT LETTERS

All the letters received commenting on the Draft RMP/EIS are reproduced here except for the following:

Several letters were typed due to technical problems in reproduction of the ink used to write the letters.

Comments submitted on Land Adjustment Maps were not reproduced.

1a

Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

Reply to:

730 Simms Street, Room 450
Golden, Colorado 80401

May 20, 1983

Mr. Dan Lechefsky
Project Manager
Butte District Office
Bureau of Land Management
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

On May 16, the Council received the Bureau of Land Management's "Headwaters Resource Area Resource Management Plan/Environmental Impact Statement" for the Butte District, Montana. In accordance with section 102(2)(c) of the National Environmental Policy Act of 1969, we have reviewed the environmental statement regarding the adequacy of its consideration of historic properties (historic, archeological, architectural, and cultural properties).

We note that historic properties do exist in Butte District, but the environmental statement does not demonstrate that the Bureau is aware of its responsibilities for the protection of such properties pursuant to Section 110 of the National Historic Preservation Act of 1966, as amended in 1980, nor does it identify a commitment to comply with Section 106 of that Act for those historic properties that would be affected by the actions taken to implement the management program. In-point-of-fact, the descriptions of Bureau historic properties management on pages 23 and 67 imply an independent management program which does not conform to the congressionally mandated program detailed in the National Historic Preservation Act and the Council's regulations. For these reasons we consider the treatment of historic properties in the environmental statement to be inadequate, and we suggest substantial revision of the final environmental statement to ensure that the management program established for the Headwaters Resource Area is in conformance with applicable Federal laws and regulations. In particular, we would like to point out that management decisions regarding historic properties should only be made after consultation with the Montana State Historic Preservation Officer and the Council (as appropriate) in accordance with the steps detailed in 36 CFR 800.

1b

If you have any questions please contact Brit Storey of my staff at (303) 234-4946, an FTS number.

Sincerely,

Louis S. Wall
Chief, Western Division
of Project Review

2a

United States Department of Agriculture

Forest Service

Federal Building
P.O. Box 7669
Missoula, MT 59807

RECEIVED
JUL 0 0 1983
Bureau of Land Management
Butte District Office

Reply to: 2700

Date: JUL 2 8 '83

Jack McIntosh, District Manager
Bureau of Land Management
Box 3388
Butte, MT 59702

Dear Mr. McIntosh:

We have reviewed the Headwaters Resource Areas Resource Management Plan and have the following comments:

Several parcels of Bureau of Land Management (BLM) land are adjacent to our Elkhorn Wildlife Management Unit which is being established in accordance with the recommendations contained in the congressionally mandated Elkhorn Wilderness Study Report. Several BLM management areas influence widlife in that area on the Helena National Forest.

Management Unit 9. The deer-elk winter range values are very high in the portions of this unit that are adjacent to our Elkhorn Wildlife Management Unit and endorse the preferred alternative that allows for restrictions on motorized access. These BLM lands are important to the total wildlife habitat in the Elkhorn area and hope that more specific road management guidelines can be developed. We will supply all resource information we have and work with BLM land managers in developing these guidelines. We support the effort to improve conditions in the Devils Fence Allotment.

Management Unit 23. The portion of this management unit in the Golconda Creek area adjacent to our Elkhorn Wildlife Management Unit currently provides excellent elk spring-summer habitat. Although our monitoring activities are not complete, early indications are that this area is key to elk in the Elkhorns. Because of the importance of this area to elk, and to be compatible with our management of the Elkhorns, any timber harvest should be restricted to that which maintains or improves elk summer habitat. This would most likely change the high priority for forest management that the area currently has to something else. Specific road management guidelines for this area would be helpful. We support the efforts to improve range conditions in the Muskrat Allotment.

Management Unit 31. The habitat is very important to the elkhorn wildlife populations, especially deer and elk during the winter. We will continue to provide information from monitoring to BLM land managers and work with them in preparing specific road management and other guidelines to assure compatibility with our adjacent wildlife management unit.

FS-6000-11 (9-80)

2b

Mr. Jack McIntosh 2

The following comments are relative to areas adjacent to or in close proximity of the Gallatin NF:

T. 5 N., R. 9 E., Section 14: BLM lands occupies most of the W½ of this section, and the National Forest owns the entire E½. This area is in the Three Peaks grazing allotment and both Agencies have the same permittee (Mr. George Hirscheaberger). Our proposed management prescription for this area is for wildlife and livestock. BLM has identified this tract as Catagory II for disposal through sale, exchange or transfer. We believe that this tract should be eventually included in a transfer program to the National Forest and included within our management area 17.

Canyon Mountain Further Study Area - T. 3 S., R. 8 and 9 E.: Realizing that this area will require further study by BLM, our comment at this time is that these lands should be included in a transfer program since they are important in providing future access and would also be valuable as trading stock in consolidating public ownership in this area.

Study Area Adjacent to National Forest in East Side of Yellowstone Valley: The majority of these lands is adjacent to National Forest ownership and have high wildlife and recreational values. We strongly support that these BLM lands be retained in public ownership and eventually be included in a transfer program.

The remaining BLM lands in the immediate vicinity of National Forest System lands in both the disposal and further study catagories are generally scattered parcels not adjacent to Forest boundaries. Our comment is that in many cases these tracts could be utilized as key trading stock to block up within the Forests.

We appreciate the opportunity to comment on this plan.

Sincerely,

TOM COSTON
Regional Forester

3a

DEPARTMENT OF THE AIR FORCE
AIR FORCE REGIONAL CIVIL ENGINEER CENTRAL REGION (AFESC)
1114 COMMERCE STREET
DALLAS, TEXAS 75242

15 Aug 83

Mr. Dan Lechifsky, Project Manager
Butte District Office, BLM
P.O. Box 3388
Butte, Mt 59702

Dear Mr. Lechefsky:

We have reviewed the draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the Headwaters Resource Area.

Review of the RMP/EIS indicates several Minuteman launch control and launch facilities within the Headwaters Resource Area. The hardened intersite communications cable system also passes through areas identified as private surface ownership and public land declared acceptable for further consideration for coal development.

The Malmstrom AFB Cable Affairs Officer has discussed the hardened intersite communications cable routing with your Great Falls field office. It is the Air Force understanding that the Great Falls Field Office plans to annotate the location of the cable on their working drawings and coordinate with the Cable Affairs Officer whenever an oil/gas lease application is received which could impact on the hardened intersite communications system or a launch control/launch facility.

For specific location of the launch control/launch facilities, the Cable Affairs Officer at Malmstrom AFB can be contacted through your Great Falls field office.

Sincerely,

PAUL D. GARCIA Major, USAF
Deputy Chief, Environmental Planning Division

Cy to: SAC/DEPVQ
15 AF/DE
47 AD/LG
2153 CS/LGMN
341 CSG/DEL
341 CSG/DEEV

4a

DEPARTMENT OF THE ARMY
OMAHA DISTRICT CORPS OF ENGINEERS
6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102

REPLY TO ATTENTION OF:

June 27, 1983

Planning Division

Mr. Dan Lechefsky
Project Manager
Butte District Office
Bureau of Land Management
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

We have reviewed the draft Resource Management Plan/Environmental Impact Statement for the Headwaters Resource Area. We find the document to be informative, but we have no comments to offer at this time on the Plan. Thank you for this review opportunity.

Sincerely,

Richard D. Gorton
Chief, Environmental Analysis Branch
Planning Division

RECEIVED
JUN 30 1983
Bureau Of Land Management
Butte District Office

5a

United States Department of the Interior
BUREAU OF MINES
WESTERN FIELD OPERATIONS CENTER
EAST 360 3RD AVENUE
SPOKANE, WASHINGTON 99202

August 4, 1983

Memorandum

To: Jack A. McIntosh, District Manager, Bureau of Land Management, Butte, Montana

From: Supervisor, Minerals Involvement Section

Subject: Headwaters Resource Area Resource Management Plan (RMP)

A search of our Mineral Industry Location System (MILS) indicates about 10% of the total number of mineral properties in the state of Montana lie within government land tentatively categorized for disposal in the Headwaters Resource Area. The entire resource area contains nearly 50% of the total number of mineral properties in the state that are entered in the MILS system.

We are enclosing a MILS printout for your information. We have been informed by your staff that lands categorized for possible disposal which are mineral-in-character will be reclassified to the retention category. We hope this will aid you in your analysis.

If we can be of further assistance, please contact us.

D'Arcy P. Banister

Enclosure

RECEIVED
AUG 08 1983

6a

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Federal Building, Room 3035
316 North 26th Street
Billings, Montana 59101-1396

IN REPLY REFER TO:
ES

July 15, 1983

Memorandum

To: Headwaters RMP Project Manager, Bureau of Land Management, Butte District Office, P. O. Box 3388, Butte, MT 59702

From: Field Supervisor, USFWS, Billings, MT (ES)

Subject: Review of Headwaters Resource Area RMP Draft Environmental Impact Statement

We have reviewed the subject statement and the following constitute the comments of the U.S. Fish and Wildlife Service (FWS).

Endangered Species

Our Endangered Species Team personnel have discussed the need for and benefits of preparing a biological assessment on the RMP/DEIS with your staff and will provide assistance to them throughout the Section 7 compliance process described in the Endangered Species Act (ESA).

Generally, we view the plan as a document which projects certain improvements or safeguarding mechanisms for endangered and threatened species habitats within the planning area. Overall, the information about listed species is noteworthy and direct in indicating where either adverse or beneficial effects may result from proposed resource allocations or projected use and development of resources.

Our concern is that a major fault of the planning process and the document arose because endangered species were not identified as an issue during the "issue driven" planning process, and hence, no goals for these species or their habitats over the planning period are presented in the plan. Lacking these goals, the plan is unable to describe these habitats in any detail. Therefore, resources cannot be allocated directly for management and improvement of those seasonal or year-long habitats of importance to endangered and threatened species in the planning area over the life of the plan.

6b

Because of these concerns, we recommend that an effort be made during the Section 7 consultation process at establishing long-term goals for endangered and threatened species, their recovery, and identification or documentation of known important and manageable habitats. With this base, the biological assessment can be structured to examine alternatives and their impacts (direct, indirect, and cumulative). The final step needed is the identification and use of various criteria which will be followed in resource use prescriptions to evaluate both case-by-case and area-wide development actions in the future. By establishing these procedures and criteria now, we can then assess whether the action proposed in the RMP/DEIS is or is not likely to affect endangered or threatened species over the long-term. Moreover, funding and manpower resources can be identified in advance of development so that EAR's and other site review processes can be adequately accomplished.

Since the purposes of ESA (Section 2(b)) requires Federal agencies to "provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved," we believe that comprehensive plans for resource allocation must take a comprehensive look at how, where, and when allocations can be made to meet the purpose of the Act. We will help you to the best of our ability to meet our shared responsibilities as directed by ESA and hopefully, to meet the timetables established for the Headwaters RMP Record of Decision.

We hope that the biological assessment serves as a mechanism for evaluating and documenting the endangered and threatened species goals, objectives, and management direction for this resource area. We recommend that BLM incorporate this information into the RMP/FEIS. Our concern for species listed in this area is great, especially in those habitats along the Rocky Mountain Front and in riparian/wetland areas. We realize that several public agencies and private entities are involved in managing these habitats and recognize the need for total cooperation if habitats are to be maintained for these species in this area. We recommend continued use of recovery plans now available for the wolf and grizzly bear in an effort to achieve a cooperative recovery of these species and to help direct your thinking in long-term resource planning.

Range Resources

Under the preferred alternative (Alternative A), seeding and interseeding is proposed for 2,560 acres. On page 118 of the draft, we note that the BLM is proposing to utilize native and introduced plants. We are very concerned if the introduced species to be utilized is crested wheatgrass. This type of conversion results in monotypic vegetation, essentially useless to wildlife. Even if other species such as alfalfa or sweetclover are included in the mixture, they are generally eliminated over time due to the competitive nature of crested wheatgrass and the high livestock utilization rates typically used to maintain the "pasture" in palatable condition. We feel that these conversions (to crested wheatgrass) should not be undertaken on public lands that are managed for multiple use. If undertaken at all, they should be developed on private lands included in an AMP in order to defer use on the native public range until mid-June or early July. Thus, the livestock operator would still

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have the necessary spring grazing and the native public range would be maintained. We feel this is critically important because of the negative wildlife implications resulting from the loss of native range in Montana due to "plow-out" in recent years.

Regarding range reseeding, on page 237 (item #11) the draft states that all areas where vegetative manipulations are to occur will be rested at least two years after treatment. It has been our experience (and we recommend) that these areas should be rested for three growing seasons, to obtain good ground cover, plant vigor and wildlife habitat.

Riparian Habitat

We were pleased to see the special emphasis given to riparian habitat in the draft. However, we feel that more needs to be done, in a timely manner, to preserve this extremely valuable habitat. As you know, the BLM, at the national level, has recognized the importance of riparian-wetland habitat, and special emphasis has been given to the protection and enhancement of these areas, in terms of general policy. On February 5, 1980, the BLM published in the Federal Register (Volume 45, No. 25, pages 7889-7895), Final Guidelines; Wetlands-Riparian Area Protection and Management; Policy and Protection Procedures. Therein it is stated that, "Riparian areas which presently or potentially support broad-leaf vegetation in arid and semi-arid ecosystems are of special management concern" (emphasis added). One of the stated objectives is to, "implement a management system to protect, maintain, and enhance all wetland-riparian areas administered by BLM" (emphasis added). The guidelines further state that BLM policy will be to, "Avoid the long and short-term adverse impacts associated with the distribution, loss, or degradation of wetland-riparian areas"... and, "Preserve and enhance the natural and beneficial values of wetland-riparian areas which may include constraining or excluding those uses that cause significant, long-term ecological damage." Having reviewed the Headwaters DEIS, we do not believe that these guidelines have yet been adequately observed. We recommend that during preparation of the Final EIS, more adequate attention be given to wetland-riparian habitat protection needs, especially regarding the time over which protective measures are to be implemented. According to the draft, the proposal is to improve 58.5% (22.6 miles) of the unsatisfactory riparian habitat on priority 1 allotments over a period of 20 years; another 20 years would presumably be required to improve the 29.5% (11.3 miles) of unsatisfactory riparian habitat on priority 2 allotments. Thus, forty years would be required to reach the desired goals. The issue of moose habitat (page 126) emphasizes our concern that not enough is being done soon enough to protect riparian habitat. Under Alternative A, moose habitat would only improve from 40% unsatisfactory to 34% unsatisfactory; only four of twelve allotments containing moose habitat would improve, the remaining eight would experience little change. Therefore, we recommend that the scheduling required to implement the AMP goals for riparian habitat be shortened significantly because of its importance to both wildlife and water quality.

6d

Livestock Grazing

On the issue of grazing, we found almost no details in the draft of how grazing will be managed for the benefit of wildlife. The inference made is that bettering the range condition will increase wildlife benefits. Although we too believe that wildlife can benefit from bettering the range condition, we feel that other issues must also be considered to determine whether wildlife resources will receive any net benefits. Often times the range improvements (water, fencing, grazing systems) associated with intensive management have substantial negative impacts. For example, one ramification of intensive management is the intrusion of livestock into areas that previously were not utilized because of lack of water. After water developments are installed, livestock/wildlife competition will be spread over a broader area than was previously possible. Another impact is the often intensive utilization of forage in one or more of the pastures in a grazing system which leaves little or no residual cover for wildlife in these pastures. We feel these, as well as other pertinent issues, must be discussed in the final EIS before the assertion can be made that the proposed grazing management will benefit wildlife. As written, the draft does not discuss the negative implications of intensive management. Inasmuch as the draft indicates that grazing income to the U.S. Treasury from public lands in the Headwaters is about $58,000 and that wildlife related resources, through hunter-day use, result in $255,000 of economic stimulation, it appears that more attention should be given to addressing the impacts of grazing upon wildlife.

Land Tenure

On the issue of land tenure adjustments, we wish to commend you on your goal of utilizing exchanges (see page 112) as the primary means of disposal rather than sales. The outright sales of public lands could have severe consequences upon the wildlife values of the lands and the public's use thereof. Furthermore, we encourage you to pursue, on a priority basis, providing access to those public lands where such access does not now exist, except in those areas important to the recovery of endangered or threatened species.

Wildlife Unsuitability Criteria

We have reviewed the application of the unsuitability criteria on the federal mineral estate within the Great Falls Coal Field. We believe that the rationale used in the draft document for application of several or the unsuitability criteria are not consistent with regulations pertaining to the management of federally-owned coal (43 CFR 3400) and may result in unnecessary conflict or delays if leasing of these coal reserves is initiated in the future.

In general, we have found, during past leasing efforts in the Powder River and Fort Union Coal Regions, that completion of four-six season wildlife inventories and application of unsuitability criteria well in advance of coal leasing activities minimizes the conflict between wildlife and coal development initiatives. Section 3461.3-1(a)(1) of the Federal

6e

Coal Management Regulations states that, "Each of the unsuitability criteria shall be applied to all coal lands with development potential identified in the comprehensive land use plan or land use analysis. For areas where one or more unsuitability conditions are found and for which the authorized officer of the surface management agency could otherwise regard coal mining as a likely use, the exceptions and exemptions for each criterion may be applied."

Section 3461.3-1(b)(1) requires that, "The comprehensive land use plan or land use analysis shall include an indication of the adequacy and reliability of the data involved. Where either a criterion or exception (when under subsection (a) of this section the authorized officer decides that application of an exception is appropriate) cannot be applied during the land use planning process because of inadequate or unreliable data, the plan or analysis shall discuss the reasons therefor and disclose when activity planning, or, in the case of criterion 19, prior to approval of a permit, the data needed to make an assessment with reasonable certainty would be generated."

Section 3461.3-1(2) states that, "No lease tract shall be analyzed in a final regional lease sale environmental impact statement prepared under Section 3420.4-5 of this title without significant data material to the application to the tract of each criterion described in Section 3461.1 of this title, except, where necessary, criterion 19."

Section 3461.4-1(b) further emphasizes that, "The unsuitability criteria shall be initially applied either:

(1) During land use planning or the environmental assessment conducted for a specific lease application; or

(2) During land use planning under the provisions of Section 3420.1-4 of this title."

In summary, the regulations require that the unsuitability applications be based on adequate data and that they be completed prior to leasing of the federal coal.

Analysis for Criterion No. 11 in Appendix H documents the limited data available on golden and bald eagle nest sites in the planning area. A lease stipulation requiring additional raptor survey is recommended. In our opinion, issuing a lease with a stipulation requiring additional inventory does not meet the cited regulations. Adequate inventory and application of Unsuitability Criteria No. 11 prior to issuance of the lease is required.

Rationale expressed in the draft planning document for Unsuitability Criteria No. 13 and No. 14 suggesting inventories of cliff sites at the time of leasing for criteria No. 13 and leases with stipulations requiring inventories of high priority habitat for migratory birds of high Federal interest for Criteria No. 14 also do not appear to be consistent with the coal planning regulations. These inventories and subsequent application of unsuitability criteria are necessary and are required prior to issuance of Federal coal leases.

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The Fish and Wildlife Service is ready to assist in the identification of migratory birds of high Federal interest for coal resources contained in the Headwaters Resource Area. We are also willing to assist in identifying inventory needs and, depending upon financial resources available, may be able to assist in the completion of required inventories.

Wilderness

Because of the importance of the three areas known as Deep Creek/ Battle Creek, Blind Horse Creek, and Chute Mountain to wildlife, including endangered species, we suggest that you very seriously consider recommending these areas to Congress as suitable for wilderness. Some of the impacts to wildlife are eliminated or dampened when the provisions for wilderness management are in place, and due to the potential for resource extraction in these areas, wilderness designation may well be the best option available to insure long-term protection of these areas and their associated wildlife, particularly the grizzly. If you decide that you are unable to recommend these areas for wilderness, then we request that they be managed as roadless areas.

Specific Comment

We note that there is a discrepancy between figures presented in the body of the RMP/DEIS and reference to data contained in Figure 3-3.

We appreciate the opportunity to comment on the DEIS.

Dennis M. Christopherson

cc: State Director, BLM, Billings, MT
Robert Stewart, Department of Interior, Denver, CO
Environment Coordination, Washington, D.C.

7a

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Billings Office
316 North 26th Street
Billings, Montana 59101-1396

IN REPLY REFER TO: (SE)

July 19, 1983

Memorandum

To: District Manager, Bureau of Land Management, Butte, MT

From: Field Supervisor, Endangered Species, Billings, MT

Subject: Headwaters Resource Management Plan EIS

This responds to your July 13, 1983, memorandum regarding the proposed Headwaters Resource Management Plan EIS covering BLM lands in Jefferson, Broadwater, Gallatin, Park, Meagher, Cascade, Lewis and Clark, Teton, and Pondera Counties, Montana.

In accordance with Section 7(c) of the Endangered Species Act as amended, we have determined that the following listed and proposed threatened and endangered species may be present in the project area.

Listed Species	Expected Occurrence
Bald eagle (Haliaeetus leucocephalus)	Resident, migration
Peregrine Falcon (Falco peregrinus)	Migration, possible resident
Grizzly Bear (Ursus arctos horribilis)	Resident
Gray Wolf (Canis lupus)	Resident
Black-Footed Ferret (Mustela nigripes)	Possible resident of prairie dog towns

Proposed Species

None

We do not believe that we have data on the listed species in your area which is unknown to you. However, we encourage you to contact us, while developing the biological assessment, if you believe we can provide assistance in assessing impacts, clarifying formalities, or identifying data unknown to you.

7b

Upon completion of your assessment, if you determine that the project will affect any of the above listed species, formal consultation with the FWS through my office should be initiated. Sectin 7(d) of the Act requires that during the consultation process, the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives.

Please contact us if we can be of further assistance.

cc: Regional Director, FWS, Region 6 (FA/SE)

8a

United States Department of the Interior
NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
655 Parfet Street
P.O. Box 25287
Denver, Colorado 80225

IN REPLY REFER TO:
L7619 (RMR-PC)

JUL 1 - 1983

Memorandum

To: Project Manager, Butte District Office, Bureau of Land Management, Butte, Montana

From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region

Subject: Review of Headwaters Resource Area Resource Management Plan/Draft Environmental Impact Statement, Butte District, Broadwater, Cascade, Gallatin, Jefferson, Lewis and Clark, Meagher, Park, Pondera, and Teton Counties, Montana (DES 83/18)

The National Park Service has reviewed the subject document and has the following comments.

The Headwaters Resource Area contains one designated and 12 potential National Natural Landmarks. They are:

Designated	
Gallatin County	Middle Fork Canyon
Potential	
Cascade County	Crown Butte Sluice Boxes State Monument
Jefferson County	Dry Hollow Lewis and Clark Caverns
Lewis and Clark County	Gates of the Rocky Mountains Green Timber Basin-Beaver Creek Red Mountain Sun River Game Range
Park County	Crazy Peak-Big Timber Creek Granite Peak Glaciers
Teton County	Freezeout Lake Game Management Area Pine Butte Swamp

Further planning for the Headwaters Resource Area should consider these official and potential designations and avoid impacts that could adversely affect the ecological and geological features of these areas. Further information can be obtained from Ms. Carole Madison, National Park Service,

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Rocky Mountain Regional Office, Division of Recreation Grants and Review, P.O. Box 25287, Denver, Colorado 80225 (Phone: 234-6443).

The Headwaters Resource Area also contains a portion of the Flathead Wild and Scenic River, a component of the National Wild and Scenic River System. Impacts which would adversely affect this resource should also be avoided. Further information can be obtained from Mr. Duane Holmes at the same address and phone as Ms. Madison.

The plan identifies significant resource issues on land lying within 2 to 3 miles of the north boundary of Yellowstone National Park. Oil and gas leasing and lease application activity is ongoing on National Forest lands immediately adjacent to those lands on and near the park boundary. However, oil and gas leasing, a significant issue to Yellowstone, has not been identified in the plan. If oil and gas leasing occurs near Yellowstone National Park, we request that the final environmental impact statement discuss and analyze impacts on air quality, groundwater, and wildlife habitat (including that of the threatened grizzly) in the Yellowstone ecosystem.

for Richard A. Strait

Richard A. Strait

10a

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION EIGHT
555 ZANG STREET, BOX 25246
DENVER, COLORADO 80225

IN REPLY REFER TO

U.S. Department of the Interior
Bureau of Land Management
Mr. Dan Lechefsky, Project Manager
Butte District Office
P.O. Box 3388
Butte, Montana 59702

June 3, 1983

Dear Mr. Lechefsky,

Thank you for the opportunity to review the draft Resource Management Plan/Environmental Impact Statement for the Headwaters Resource Area, Montana.

Our review indicates that the document satisfactorily addresses our concerns. We are pleased to note that the Montana State Highway Department has received a copy of this document for review.

Sincerely,

Robert L. Jacobsen
Office of Environmental Programs

JUN 07 1983
Bureau of Land Management
Butte District Office

11a Butte DO

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80295-0699

AUG 8 1983

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Ref: 8PM-EA

Mr. Michael J. Penfold
State Director
Bureau of Land Management
U.S. Department of Interior
222 North 32nd Street
P.O. Box 30157
Billings, Montana 59107

Dear Mr. Penfold:

We have completed our review of your agency's draft environmental impact statement on the "Resource Management Plan - Headwaters Resource Area".

The major issue with this EIS appears to be management of lands along the Rocky Mountain front. Your proposed alternative for management of this area offers protection to water quality but would not offer the degree of long-term protection to wildlife, especially the grizzly bear, as would official wilderness designation of these important habitat areas.

Although we agree with the EIS that air quality impacts from your proposed alternative would generally be minimal, we would point out that production of "spur" gas found in this area might well require a sweetening plant. Such facilities would have to be carefully scrutinized, especially in light of the designation of the Bob Marshall Wilderness Area as a Class I airshed. We believe this should be mentioned in the final EIS.

We support all efforts to improve watersheds, protect riparian areas, and to control indiscriminate use of off-road vehicles. All these aspects should help protect water quality in the study area.

According to EPA's rating system for draft impact statements, this EIS is rated LO-2 (lack of objections - insufficient information). The "2" rating is in reference to our comments on air quality. If you have any questions, please contact Mr. Gene Taylor in our Helena Montana Office at (406) 449-5486 or FTS 585-5486.

Sincerely yours,

John G. Welles
Regional Administrator

12a

MONTANA HISTORICAL SOCIETY
HISTORIC PRESERVATION OFFICE
225 NORTH ROBERTS STREET • (406) 449-4584 • HELENA, MONTANA 59601

May 18, 1983

Dan Lechefsky, Project Manager
Butte District Office, B.L.M.
P.O. Box 3388
Butte, MT 59702

Dear Mr. Lechefsky:

RE: Headwaters Resource Area Resource Management Plan/
Environmental Impact Statement.

Thank you for the opportunity to review the above-named document. The document seems to be well written and cultural resources are presented clearly. I recommend that the final document specify your personnel needs under each of the alternatives and present your proposed programs for the survey of those portions of the study area which have not yet been surveyed for historic properties as well as your program for the timely evaluation and nomination to the National Register of Historic Places of identified historic properties.

Sincerely,

Marcella Sherfy
Deputy SHPO

TAF:md

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MAY 23 1983
Bureau of Land Management
Butte District Office

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State of Montana
Office of the Governor
Helena, Montana 59620

TED SCHWINDEN
GOVERNOR

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August 5, 1983

Mr. Michael Penfold, State Director
U.S. Bureau of Land Management
P.O. Box 30157
Billings, MT 59107

Dear Mike:

On behalf of the Governor's Planning Task Force I want to thank you for the opportunity to review and comment on the BLM Headwaters Resource Area Resource Management Plan (RMP). I have attached specific comments about range management, soil and water management, land tenure adjustment, weed control, grazing, fire management and wildlife.

Although the Headwaters Plan is well organized and easy to read, it is very general. Future allotment or project management plans should be specifically described. The effects of each proposed action and the monitoring methods to be used should be identified in the Plan.

I look forward to receiving the final Headwaters RMP and continuing our good working relationship.

Sincerely,

TED SCHWINDEN
Governor

Enc.

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SPECIFIC COMMENTS

A. RANGE MANAGEMENT

1. Monitoring of range conditions and trends will be very important in the Headwaters Resource Area, because 20,173 acres of grazing lands have not been inventoried and only 10 allotment Management Plans are now in existence. The BLM should conduct range surveys on the 20,173 unsurveyed acres whenever possible.

2. The State supports targeting range improvements for allotments with the greatest potential for improved range, watershed and wildlife value and the reduction of stocking rates to proper use. The guidelines for livestock grazing in important grizzly bear habitat should help to ease livestock/bear conflicts. However, the operators affected by such action should be given ample time to adjust to the new management guidelines.

3. The State supports the Outstanding Natural Areas designation for the four Rocky Mountain Front areas as being protective of resource and wildlife values without excluding all resource activity. The management flexibility afforded by this designation should not be an impediment to continued livestock use of these areas.

4. The BLM did not provide projected percentages of expected improvements in range conditions over the entire resource area. By not providing this information the question of the cost-benefits of their objectives arises. A time frame for implementation should be provided to give credence to their objectives. Without these answers the cost benefits of their objective can be unrealistic.

5. Changes in lessee management is not discussed. If management is retained with the operator, will objectives be accomplished on a wide scale? This should be addressed in the Final RMP.

B. SOIL/WATER MANAGEMENT

1. Appendix C states that the Best Management Practices were selected to avoid rather than mitigate impacts to water quality and soils. The prevention of adverse impacts is clearly desirable, but, mitigative measures should also be developed in case adverse impacts do occur.

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13c

2. On pages 48-50, Table 2-16, the impacts to soil and water resources range from minor deterioration to moderate-high improvement. However, riparian, waterfowl and fisheries habitat range from a major decrease to minor increase. How can soil and water resources experience improvements and habitats deteriorate?

3. Grazing management, oil and gas development and coal mining are concerns for water quality impacts. Streambank protection should be considered when evaluating grazing allotments. Oil and gas development should consider stipulations for wastewater and sludge disposal in areas where surface and ground water will not be polluted (reference Montana Surface Water Quality Standards - 16.20.601 and Montana Groundwater Standards - 16.20.1003).

C. LAND TENURE ADJUSTMENT

1. The State supports the land ownership adjustment categories shown on the Management Unit Map and the Land Ownership Adjustments map. All tracts within the disposal category should be carefully screened for resource values before being slated for exchange or sale. We support the emphasis on exchange as the primary method for disposal. Land exchange can be used to improve public access to rivers and other recreational-sportsman conflicts.

2. It is unclear how the boundary between Management Units 9 and 10 was drawn, particularly in the Horseshoe Hills and the Smith and Musselshell River drainages. Several large blocks of public lands with high wildlife values occur within Management Unit 10 in these areas but have been placed in the disposal category. Several of these areas are contiguous with Management Area 9, a retention area. These tracts should be carefully evaluated before disposal is considered. These lands should have a high priority for exchange, as opposed to sale, because they could be valuable for increasing public access in Management Unit 9 and along the Smith and Missouri Rivers.

3. The "sodbusting" in Montana could jeopardize BLM's asset management program. We support the exchange of lands for isolated tracts where there is potential irrigable lands and in areas that make good land management sense. These lands are principally rangeland and should not be broken up unless they are classified as tillable land by the Soil Conservation Service. We suggest that a "statement of intent" and a soil conservation plan accompany any person's or company's offer to buy or exchange BLM land.

D. WEED CONTROL

1. The BLM should commit to cooperative efforts with county weed boards, private landowners and state and federal agencies.

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2. Weeds and their control cost Montana producers $25-27 million annually. The loss to producers from weed competition, water and nutrient loss and shading is estimated at $2 million. This is after Montana producers have spent $23-25 million on control. Due to these facts, more attention should be given to the identification, mapping and control of noxious weeds in the BLM management plan.

E. GRAZING

1. The State is concerned about possible substantive negative impacts to certain grazing permittees under the preferred alternative. The DEIS cites a 5-year horizon for phasing in livestock reductions. The State believes that where proposed actions threaten the viability of the livestock operator that every effort should be made to ameliorate this situation. The BLM might consider extending time frames, scaling down the proposed decrease in AUMs, helping locate alternate public rangelands or implementing more intensive management plans on these allotments.

2. The Range Program set forth in the RMP provides relative objectives and how the differing alternatives will cut or add AUM's to grazing. However, no time frames were provided of when they expect to meet those objectives. No time frames were presented of when new allotment management plans would be planned, initiated or completed. No time frames were presented on how range improvements would be established to meet planned objectives. Such time frames should be provided in the Final RMP.

3. The State has read with great interest the new Cooperative Management Agreement (CMA) program for selected livestock operations on the public lands. The sketchy details received to date indicate that only those permittees whose allotment is in the "M" (maintain) category will be eligible.

Appendices D and E of the DEIS show that many allotments are in good repair in terms of vegetation and riparian areas, yet are categorized as "I" (improve) allotments solely for wildlife reasons. How does the BLM reconcile the seeming penalty of ineligibility for the CMA program for the livestock operators in these instances?

4. In grazing allotments targeted for a short term decrease in AUMs, the grazing permittee should receive consideration in the allocation of any long term increased forage production.

F. FIRE MANAGEMENT

1. The fire program is defined under "mangement guidance common to all alternatives," but little detail is provided concerning implementation. Given the scattered nature of BLM lands, the policy regarding cooperation with the Department of State Lands,

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and the USDA Forest Service should be explained. Also, the existence of the County Cooperative Fire Program should be acknowledged, and coordination with the participating counties explained.

2. No mention is made of the impacts associated with the prescribed burning of logging debris and sagebrush. The preferred alternative indicates that prescribed burning is planned on both forest and range lands, but no measures are given for mitigating smoke impacts. Reference should be made to the Montana Cooperative Smoke Management Agreement and Plan.

G. WILDLIFE

1. In reviewing the selected issues we noted that wildlife and wildlife related recreation was not identified as an issue. The basis for identification of the various issues was judgement of the planning team members, inter-agency consultation, public input, and review by BLM managers. We understand that wildlife was discussed under several of the eleven issue headings, but we strongly feel that if issues are to be a major part of the planning format, wildlife and wildlife related recreation warrants comparable status with grazing, timber, minerals, etc.

2. We endorse the utilization of the guidelines from the Montana Cooperative Elk Logging Study in the formulation of forest activity. Page 24, Paragraph 1 of the RMP, Silvicultural Guidelines and Harvesting Techniques--emphasis should be placed on minimizing public access into areas that have significant security values for elk and other wildlife species.

3. We support the seasonal wildlife restrictions as indicated in Table 2-2. But, we do object to the exclusion of timber harvest, regarding consultation opportunities provided the Department of Fish, Wildlife and Parks. Timber harvest activities have the same potential for adverse impacts to wildlife as other cultural practices involving vegetative manipulation.

4. The Elkhorn Mountains have been designated by the U.S. Forest Service as a prototype wildlife management area. Because of this, they have been withdrawn from the regulated timber base. To be consistent with Forest Service planning the BLM should withdraw all areas adjacent to Forest Service lands in the Elkhorns from proposed regulated timber harvest, which is indicated in all alternatives. This does not mean that some timber harvest will not be allowed, but that it should be coordinated with the Forest Service so as not to conflict with the planning direction taken in their wildlife management area.

-4-

14a

City-County Building
316 North Park
Helena, Montana 59623
Telephone 406/443-1010

LEWIS AND CLARK COUNTY
Board of County Commissioners

June 15, 1983

Mr. Dan Lechefsky, Project Manager
Butte District Office
Bureau of Land Management
Box 3388
Butte MT 59702

Dear Mr. Lechefsky:

We would like to offer the following comments on your draft Headwaters Resource Area Management Plan/ Environmental Impact Statement:

1. We are supportive of Management Alternative C: the Protection Alternative. We believe that emphasis on the protection of environmental values is in the best interests of the citizens of Lewis and Clark County. We expect some resource use and development on public lands but feel that preservation of these lands' unique natural characteristics should be preserved in the process.

2. We appreciate the opportunity to comment on this RMP/EIS. We are very concerned that BLM's communication and public involvement efforts be of the highest priority in any of its land management decisions.

3. We are also quite sensitive to the potential land use and socio-economic impacts that may accrue to BLM's land management policies.

4. Management issues numbered 6, 7, and 8 as they relate to the Scratchgravel Hills are addressed in the county's recently completed Scratchgravel Hills Comprehensive Management Plan. (A copy of this draft document has been sent to Mr. Lyle Fox in your office.)

5. As indicated in our April 19, 1983, letter to your state director, Mr. Mike Penfold, we are very interested in management issue No. 5. We recently supported the successful grant application of a local consultant to conduct an extensive study of possible public and private land trades to preserve agriculture and to help protect land determined to be of significant public value. We are very

15a

TETON COUNTY CONSERVATION DISTRICT
CHOTEAU, MONTANA 59422

May 27, 1983

Dan Lechefsky
Project Manager
Butte District Office
BLM
P.O. Box 3388
Butte, Montana 59702

Dear Sir:

At the recent Board of Supervisors meeting your proposed RMP/EIS draft was reviewed. The Board will like to inform you that they are in agreement with Alternative A, regarding wilderness areas in our county.

If you have further questions, or more information is needed please call our office at 466-5651.

Sincerely,

CHARLES W. PROFFT
Chairman

JUN 0 6 1983

14b

Mr. Dan Lechefsky, Project Manager
Page 2
June 15, 1983

appreciative of BLM's efforts to utilize land trades to acquire additional lands for public benefit. The lengthy process by which BLM recently acquired former Oxbow Ranch land on the Missouri River is a good example of the policies which we support.

In summary, we believe that BLM should play a stewardship role for lands which have been entrusted to its management. The public should always have sufficient time to comment on any proposed changes in BLM's land management policies.

Thank you for the opportunity to comment on your RMP/EIS. We look forward to continued cooperation and coordination with your office.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
LEWIS AND CLARK COUNTY

not available for signature
John H. Wilkinson, Chairman

Bob Decker

Linda Scott-Anderson

c Lyle Fox
Jack McIntosh
APO

ch/ck

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Company 555 Seventeenth Street
Denver, Colorado 80217
Telephone 303 575 7577

J. R. Mitchell
Public Lands Coordinator

July 25, 1983

Mr. Dan Lechefsky
Project Manager
Butte District
Bureau of Land Management
P.O. Box 3388
Butte, Montana 59702

RE: Draft Headwaters Resource Management Plan & Environmental Impact Statement

Dear Mr. Lechefsky:

Atlantic Richfield Company appreciates having the opportunity to provide comments to the Bureau of Land Management (BLM) regarding the draft Resource Management Plan (RMP) for the Headwaters Resource Area, Montana. Our comments also pertain to the proposed designation of the Sleeping Giant tract as an Area of Critical Environmental Concern, which appeared in both the draft RMP and the June 23, 1983, Federal Register.

We are very concerned that several recommendations set forth under the Preferred Alternative would effectively preclude exploration and development of oil and gas resources in locations along the Rocky Mountain Front which have the highest potential for such development. While none of the five areas under consideration are recommended as suitable for wilderness designation, it appears that the BLM contemplates adopting highly protective management stipulations that amount to de facto wilderness. Specifically, we are alarmed by statements made concerning four areas along the Rocky Mountain Front - Blind Horse Creek, Ear Mountain, Chute Mountain, Deep Creek/Battle Creek - which are recommended for Outstanding Natural Area (ONA) designation. The Preferred Alternative asserts that this "special designation will permit essentially the same level of protection for scenic, recreational, and other values that wilderness designation would provide." Similar intentions appear to exist with respect to the proposed Sleeping Giant ACEC. Clearly, such stringent protection, especially the increase in no surface occupancy restrictions, would impede if not prohibit development of the area's oil and gas resources. The contemplated increase in regulation is particularly disconcerting because of the very high potential of the area, and Atlantic Richfield's

16b

very active exploration program throughout the entire region.

To quantify the implications which the four alternatives and current management practices have for energy and minerals, we employed the RMOGA evaluation matrix to assess the development opportunities which would be foregone under each course of action (see attachment). This analysis highlights the impact of contemplated restrictions on the potential for resource development, with the Preferred Alternative yielding a figure which is 72% of the exploration opportunity in the Resource Area if only standard stipulations were applied. This compares with a percentage of 80% for the production alternative and, somewhat surprisingly, a figure of 86% for current management practices. This analysis demonstrates that the so-called resource production option is actually more restrictive than present management. This impact is felt principally because of the restrictive stipulations recommended for areas of highest oil and gas potential.

On this basis, we argue that the public interest would be better served by permitting surface occupancy to facilitate exploration within the areas in question. Experience has demonstrated that intelligently conducted exploration and development activities can be compatible with sensitive natural environments. Such exploration would provide the resource information base needed for well-informed, rational land use planning decisions.

We are also concerned over what appears to be an implicit assumption in the Headwaters RMP; that oil and gas exploration cannot be undertaken without having severe negative impacts on an area's wildlife habitat and populations. At its Sheep Mountain facility in Colorado, Atlantic Richfield has demonstrated that it can operate a gas field in an area that has been designated as critical elk winter and calving range without having adverse impacts. In fact, studies by ARCO and the Bureau of Land Management have shown that the elk herd in this area is increasing annually. Clearly, an implicit assumption that wildlife and oil/gas exploration are incompatible, which ignores the environmental sensitivity of modern industry practices, should not influence the allocation of resources on our public lands.

16c

We encourage the BLM to reconsider the proposed imposition of additional regulatory controls on the areas of high oil and gas potential. While the Preferred Alternative claims that ONA designation is intended to preserve future management options while providing full protection for surface values, the proposed access restrictions could effectively deny us the opportunity to explore and develop the oil and gas resources along the Rocky Mountain Front.

Thank you for the opportunity to provide these comments. Please contact this office if we can be of further assistance in your planning effort.

Sincerely,

J.R. Mitchell

JRM:JFO:drm
Attachments

16d

HEADWATERS RESOURCE AREA, MONTANA

RMOGA EVALUATION MATRIX

SUMMARY TABLE

Oil and Gas Opportunity

ALTERNATIVE	RMF*	REST	OVERALL
A (Preferred)	62.44	80.48	72.04
B (No Action)	66.13	80.31	73.67
C (Protection)	42.46	81.39	63.17
D (Production)	70.78	80.10	79.96
Current Status	83.75	87.99	85.99

The figures in this summary table reflect the percentage of exploration opportunity by alternative as a function of exploration opportunity if only standard stipulations were applied throughout the Resource Area.

*Rocky Mountain Front

16e

ALTERNATIVE A (PREFERRED)

Potential

RMF High = 4 Low = 1

Restrictions	Acres	x	Act-Min		
High 1	18550	x	(4-4)	=	0
2	14040	x	(8-4)	=	56160
3	49500	x	(12-4)	=	396000
Low 4	36160	x	(16-4)	=	433920
	118250				886080

REST

	Acres	x	Act-Min		
1	2348	x	(1-1)	=	0
2	8910	x	(2-1)	=	8910
3	289708	x	(3-1)	=	579416
4	236289	x	(4-1)	=	708867
	537255				1297193

RMF (High Potential)

Range = 118250 x (Act - Min) = 118250 x 12 = 1419000

Opportunity = Actual / Range = 886080 / 1419000 = 62.44%

REST (Low Potential)

Range = 537255 x (Act - Min) = 537255 x 3 = 1611765

Opportunity = Actual / Range = 1297193 / 1611765 = 80.48%

OVERALL

Opportunity = Actual (High + Low) / Range (High + Low) = 886080 + 1297193 / 1419000 + 1611765 = 2183273 / 3030765 = 72.04%

16f

ALTERNATIVE B (NO ACTION)

RMF

Restrictions	Acres	x	Act-Min		
1	15430	x	0	=	0
2	7200	x	4	=	28800
3	59460	x	8	=	475680
4	36160	x	12	=	433920
	118250				938400

REST

	Acres	x	Act-Min		
1	2995	x	0	=	0
2	10325	x	1	=	10325
3	287643	x	2	=	575286
4	236289	x	3	=	708867
	537225				1294478

RMF (High Potential)

Opportuntity = Actual / Range = 938400 / 1419000* = 66.13%

REST (Low Potential)

Opportunity = Actual / Range = 1294478 / 1611765* = 80.13%

OVERALL

Opportunity = Actual (High + Low) / Range (High + Low) = 938400 + 1294478 / 3030765 = 73.67%

*computed in Alternative A

16g

ALTERNATIVE C (PROTECTION)

RMF

Restrictions	Acres	x	Act-Min		
1	40790	x	0	=	0
2	39020	x	4	=	156080
3	3700	x	8	=	29600
4	34740	x	12	=	416880
					602560

REST

	Acres	x	Act-Min		
1	0	x	0	=	0
2	3731	x	1	=	3731
3	299203	x	2	=	59846
4	236584	x	3	=	709752
					1311889

RMF (High Potential)

Opportunity = Actual / Range = 602560 / 1419000 = 42.46%

REST (Low Potential)

Opportunity = Actual / Range = 1311889 / 1611765 = 81.39%

OVERALL

Opportunity = Actual (High + Low) / Range (High + Low) = 602560 + 1311889 / 3030765 = 63.17%

16h

ALTERNATIVE D (PRODUCTION)

RMF

Restrictions	Acres	x	Act-Min		
1	10950	x	0	=	0
2	0	x	4	=	0
3	70820	x	8	=	566560
4	36480	x	12	=	437760
	118250				1004320

REST

	Acres	x	Act-Min		
1	3924	x	0	=	0
2	11821	x	1	=	11821
3	285287	x	2	=	570574
4	236223	x	3	=	708669
	537255				1291064

RMF (High Potential)

Opportunity = Actual / Range = 1004320 / 1419000 = 70.78%

REST (Low Potential)

Opportunity = Actual / Range = 1291064 / 1611765 = 80.10%

OVERALL

Opportunity = Actual (High + Low) / Range (High + Low) = 1004320 + 1419000 / 3030765 = 79.96%

16i

CURRENT STATUS

Total Area = 649955 acres

Restrictions	RMF Acres	x	Act-Min		
1	10950	x	0	=	0
2	3550	x	4	=	14200
3	17700	x	8	=	141600
4	86050	x	12	=	1032600
	118250				1188400

	REST Acres	x	Act-Min		
1	1960	x	0	=	0
2	20000	x	1	=	20000
3	145633	x	2	=	291266
4	364104	x	3	=	1092312
	531705				1403578

RMF (High Potential)

MAX RANGE = Acres x (Act - Min) = 118250 x 12 = 1419000

ACTUAL (CURRENT) = $\frac{\text{Actual}}{\text{Range}} = \frac{1188400}{1419000} = 83.75\%$

REST (Low Potential)

MAX RANGE = Acres x (Act - Min) = 531705 x 3 = 1595115

ACTUAL = $\frac{1403578}{1595115} = 87.99\%$

OVERALL

$\frac{\text{Actual}}{\text{Range}} \frac{(\text{RMF} + \text{REST})}{(\text{RMF} + \text{REST})} = \frac{1188400 + 1403578}{1419000 + 1595115} = \frac{2591978}{3014115} = 85.99\%$

17a

Chevron U.S.A. Inc.
700 South Colorado Blvd., P. O. Box 599, Denver, CO 80201

Richard T. Hughes
Staff Analyst
Legislative and Regulatory Affairs

June 20, 1983

Draft RMP/EIS
Headwaters RA

Mr. Dan Lechefsky
Project Manager
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

Much of the Headwaters RA, particularly the Rocky Mountain Front Area, bears significant potential for discovery and development of oil and gas resources. While your Draft RMP/EIS attempts to recognize this significant potential, we fear that some of the management prescripting for protection of other resources will prevent full realization of the energy and mineral potential in the Headwaters RA. In areas of moderate to high energy and mineral potential, we believe those activities should be encouraged and restrictions for protection of other resources should be limited to those absolutely necessary.

Sincerely,

Richard T. Hughes

RTH/cgf

Central Region – Exploration, Land and Production

18a

conoco

Conoco Inc
Suite 900
1701 Pennsylvania Avenue, N.W.
Washington, DC 20006
(202) 728 3850

July 13, 1983

Dan Lechefsky
Butle District B. L. M.
P.O. Box 3388
Butle, MT 59702

Dear Mr. Lechefsky:

We are generally encouraged by the Headwaters R. A. planning and in particular that oil and gas leasing and development are considered as major planning issues.

We note that the Rocky Mountain Front study areas are recommended for ONA designation. Because of the unarguable high petroleum potential along the front we agree with this approach inasmuch as ONA designation does not carry the penalty of absolute withdrawal that Wilderness designation does. We note, however, your statement that ONA designation will, in your words, provide "essentially the same level of protection that Wilderness designation would provide." ONA protective stipulations being a discretionary matter we hope that, in the event this alternative is taken, you will recognize that oil and gas exploration and production are proveably both brief and reparable. We believe we can work with you, IF GIVEN THE CHANCE, to illustrate that exploration would not irreparably damage environmental values. To the extent that we could work with you to prove this, and we do not take that challenge lightly, we support your preferred alternative.

E. F. Birdsall

19a

Continental Divide Trail Society

P.O. BOX 30002 BETHESDA, MD. 20814

June 29, 1983

Project Manager
Headwaters RMP
Butte District Office
Bureau of Land Management
P.O. Box 3388
Butte, Montana 59702

Dear Sir:

This is in response to your invitation for comments on the draft RMP/EIS for the Headwaters Resource Area.

Our interest relates to those aspects of the plan that may have an impact upon the Continental Divide National Scenic Trail. Specifically, we are concerned with the public lands near Rogers Pass (Management Unit 5) and near Greenhorn Mountain (Management Unit 26).

First, we agree that these lands should be classified for retention, since they are along or close to the CDNST.

Second, care should be taken to avoid conflict between Trail users and motorcycle users in the Marysville area.

Third, surface occupancy should not be allowed in T 16 N, R 6 W, Sec. 32, even though the power line there already represents a substantial intrusion. Section 33 is also sensitive, though not directly on the Continental Divide or the likely Trail route. (See Guide to the Continental Divide Trail, vol. I: Northern Montana at 135.)

Finally, visual resource management in Units 5 and 26 should be sensitive to the location of the Continental Divide Trail and the recreational use thereof.

We look forward to receiving a copy of the final Plan.

Sincerely,

James R. Wolf
Director

20a

Defenders OF WILDLIFE

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RECEIVED
MONTANA STATE OFFICE
BILLINGS, MONTANA

July 12, 1983

Mike Penfold, State Director
Bureau of Land Management
Box 30157
Billings, MT 59107

Dear Mike,

Please note the following comments on behalf of Defenders of Wildlife concerning the Headwaters Resource Area Management Plan/Environmental Impact Statement.

Of all the lands managed by the Bureau in Montana, perhaps none are more important to wildlife--and particularly to threatened and endangered species--than those in the Headwaters Resource Area, and especially the lands along the Rocky Mountain Front. While this plan does a great deal to protect those resource values, it does have some critical flaws, particularly in regard to oil and gas leasing and the designation of roadless areas.

I'd like to start, however, by making it clear that the Headwaters document is the most intelligible BLM grazing document I've read to date. The charts and maps are extremely helpful, and the structure of the EIS is such that it's easy to follow specific issues and concerns throughout each chapter. One thing that wasn't so clear, however, was how specific concerns would be addressed on an allotment-by-allotment basis. For instance, in Appendix E (Opportunities For I Allotments) you might state "XYZ Allotment: riparian vegetation in unsatisfactory condition, excessive soil erosion, elk and deer winter range in unsatisfactory condition." You would then state in the Resource Management Objectives column something like improve riparian habitat, decrease erosion, improve elk and deer winter range. What seems to be lacking is the specific management action that needs to be taken to achieve some of these objectives, because in comparing Appendix N (Stocking Rate Adjustments) to Appendix E, it's not always clear how the improvements will be accomplished. Further, I'd like to have a better sense of what the priorities are for making these improvements. Given the reduced federal funds in recent years, it would appear many of the improvements that involve intensive management may not get funded; it would have been helpful if the EIS would have looked at ways to meet resource objectives given possible budget constraints, which appear to be a reality.

The following are my comments on specific issue areas:

Oil and Gas Leasing and Development

The oil and gas issue has the potential to impact wildlife to a far greater degree than livestock grazing unless the Bureau adopts a conservative stance from the start and then loosens restrictions as found permissible or as necessity demands. Oil and gas leasing and development is particularly crucial to the welfare of both the threatened grizzly bear and endangered northern gray wolf. Conservative management at this time--and that means the adoption of sufficient-no leasing and no surface occupancy areas--will greatly reduce the number of future conflicts. Rather than delaying decisions and allow grizzly and wolf habitat to be eroded a little at a time, the Bureau should protect those areas important for endangered species now.

1244 NINETEENTH STREET, NW • WASHINGTON, DC 20036 • (202) 659-9510

20b

Defenders OF WILDLIFE

Headwaters Resource Area comments--page two

The amount of acreage suggested for no leasing and no surface occupancy in the preferred alternative is simply not enough to adequately protect the grizzly or wolf. As the Fish and Wildlife Service noted in its biological opinion on the Rocky Mountain Front plan several years ago, simultaneous development in adjacent drainages could jeopardize both the grizzly and the wolf. The Bureau needs to adopt a plan that takes into account such a possibility.

Under the preferred alternative, the main areas protected from oil and gas leasing and development would be the three roadless areas along the Rocky Mountain Front (Blind Horse, Chute Mountain, Deep Cr./Battle Cr.). This would seem to suggest that the Bureau is picking those lands that are convenient to protect, because they lack roads and development isn't imminent. Rather, the Bureau should identify those lands that are critical to these species and place them in a no leasing or no surface occupancy category. It would appear that Alternative C comes much closer to fulfilling the BLM's obligation to protect and enhance the habitat of endangered species. The preferred alternative seems like a minimal effort, geared toward keeping the grizzly from becoming endangered, rather than what's mandated by the Endangered Species Act--recovery.

Grazing Allotment and Riparian Habitat Management

The DEIS makes it clear there are some problem areas regarding grazing, particularly regarding erosion, riparian areas and the loss of wildlife habitat. Appendix E points out these problems clearly, and the BLM deserves commendation for putting forth the problems in a way that's understandable. Appendix E makes it plain to me that good vegetative condition doesn't necessarily mean good condition for wildlife. It's not reassuring to a ground nesting bird to know the range is in excellent condition if it's only two inches high. Similarly, an allotment may be in good condition yet the riparian areas--the key spots for wildlife--may be badly overutilized. Appendix E provides a good narrative on what's happening in the category I allotments, and it also makes the case for the need for improved management. My main criticism, again, is the failure of the plan to say how these improvements will be made.

Given that more than a fourth of the riparian habitat in the Resource Area is in unsatisfactory condition (and particularly since much of this is critical grizzly habitat), Defenders of Wildlife supports the proposal to improve this situation. It's not clear from the plan that correcting this situation has been given a high enough priority in the plan. It would seem those areas with large percentages of riparian in unsatisfactory condition (particularly if they're in grizzly areas) should be the highest priority I areas. I also find it unacceptable that the unsatisfactory riparian areas in the M and C categories won't be improved.

While it's possible to gain AUM's via the kind of intensive management the DEIS recommends, if those funds aren't available, it may be necessary to make the kinds of stocking reductions proposed in Alternative C in order to meet wildlife objectives for various allotments. This is a tradeoff that often takes place, but is seldom mentioned in planning documents.

Wilderness Study Recommendations

The BLM recommendations to Congress regarding possible wilderness designation of study areas was one of the more disappointing aspects of the Headwaters plan. The DEIS makes the case very well for why these areas qualify for wilderness, and in fact, would be exceptional additions to the wilderness system--particularly the areas along the Rocky Mountain Front. All three of these areas are not only exceptionally scenic, but they also have wildlife values that make them exceptional. While the

20c

Defenders OF WILDLIFE

Headwaters Resource Area comments--page three

DEIS points all this out, as well as the exceptional nature of the Forest Service roadless areas adjacent to the BLM study areas, it falls short of making a wilderness recommendation to Congress, suggesting instead that an "Outstanding Natural Area" administrative designation would provide similar protection as wilderness while maintaining "management flexibility."

I found the discussion of the ONA concept one of the most disappointing aspects of the Headwaters plan; the concept was discussed as if it were readily understood by all, an administrative management tool commonly used. To the best of my knowledge it's not, and as a person who commonly follows these issues, I must confess to not fully understanding what can and can't be done in an ONA, nor how quickly one can be changed or undone. Certainly all of these questions should have been answered in full in the DEIS; if they were, I couldn't find them.

While an ONA classification at least recognizes that the three Rocky Mountain Front roadless areas have special values, it doesn't provide the stable, long-term management direction a wilderness recommendation would. The Bob Marshall Alliance, of which Defenders of Wildlife is a member, has submitted a proposal to Montana's Congressional delegation recommending both the Deep Creek and Teton River High Peaks areas for addition to the National Wilderness Preservation System. These are the Forest Service roadless areas that border the BLM study areas. The Alliance feels these BLM areas are a key part of the Bob Marshall ecosystem, tieing together important transitional habitat between the prairie and the mountains.

An ONA classification based on speculative energy values seems like flimsy protection for areas with such proven wilderness and wildlife values.

On the other hand, the Black Sage and Yellowstone River Island areas don't have nearly the wilderness potential as the Front areas. Nevertheless, as important roadless areas their wild nature should be preserved. Clearly, the roadless attributes of the Black Sage area aren't very highly valued in the DEIS.

Forest Management

The DEIS doesn't really present enough information to analyze whether or not the proposed timber harvest level is reasonable. I couldn't find any economic data on the relative value and accessibility of timber on BLM lands, nor was there much of a discussion of how BLM forest management might impact wildlife. While the document made the generalization that timber harvest could improve wildlife habitat, it should be noted that on many BLM lands in the Headwaters area security and thermal cover are more of a limiting factor than forage. The number of miles of roads proposed to facilitate timber harvest is another concern that I didn't feel was adequately addressed; I didn't get a feeling of the BLM road management policy.

I'm also quite concerned about potential intensive timber activity on BLM land in the Roger's Pass area, which is quite critical for grizzlies and potentially important for wolves. I never did find a discussion of the management tradeoffs involved in logging this area. It should be noted that most logging along the Rocky Mountain Front is marginal at best, and the market for the timber is small. When these limited timber values are weighed against the wildlife values, they fare rather poorly.

20d

Defenders OF WILDLIFE

Headwaters Resource Area comments--page four

Land Ownership Adjustments

We firmly oppose any accelerated program to dispose of public lands. There are opportunities for the BLM to trade public lands in the Headwaters Area to public advantage, but we oppose the outright sale of lands. The DEIS suggests as many as 26,000 acres might be considered for disposal in the Headwaters Area. For the Bureau to even suggest such a massive land sale program demonstrates someone is badly out of touch with how people in Montana feel about public lands.

Rather, the BLM should be consider purchasing or trading for tracts of land known to be critical to threatened and endangered species. The Endangered Species Act directs federal agencies to take all actions necessary to recover species, and acquiring land seems like a logical action to take.

Coal Leasing

It seems illogical to lease the Great Falls coal field at a time when the demand is so low. It seems wise to take more time to study the impacts of leasing this coal before moving forward. Leasing this coal, along with possible development, has the potential to seriously affect the Smith River.

Special Designations

Designation of the Sleeping Giant Area as an Area of Critical Environmental Concern demonstrates the BLM recognizes the unique values of the area, but a wilderness designation would protect the area far better; such a designation would complement the Gates of the Mountains Wilderness.

General Comments

While this DEIS does a good job of analyzing impacts, it does so primarily from a livestock viewpoint; the plan is heavily weighted toward maintaining and developing proper levels of AUM's. While cattle grazing is an important use of the public lands, there are other uses equally important. Defenders of Wildlife feels that specific targets for these values should also be estblished; the plan should try and provide habitat for x number of grizzly bears, for example, and x number of bighorn sheep.

It's simply not enough to say that once the range is in good or excellent condition, everything will be fine for wildlife, because it isn't true. This plan fails to quantify in any way the quality and relative abundance of various kinds of wildlife habitat in the Headwaters Area.

Thank you for considering these comments.

Sincerely,

Hank Fischer

HANK FISCHER, Montana Rep.
Defenders of Wildlife
1534 Helena Ave.
Missoula, MT 59801

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DM, Butte

GREAT BEAR FOUNDATION

P.O. Box 2699
Missoula, MT 59806
(406) 273-7591

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July 22nd 1983

Mr. Mike Penfold
State Director
Bureau of Land Management
P.O. Box 30157
Billings, MT 59107

Dear Mike:

The Great Bear Foundation wants to comment on the draft EIS and Management Plan for the Headwaters Resource Area. We were unable to attend the hearing on June 15 in Helena, and hope this letter will suffice.

Congratulations to you and your staff for the most thorough, detailed, informative, well-organized and well-written plan/EIS we have reviewed in the past two years. We applaud the thoughtful and well-considered document as an excellent example.

We do have some suggestions of small changes that could be of great significance for the grizzly bears of the lower 48 states, in particular the largest population of "lower 48" grizzlies. These changes would better assure the future survival of that, largest, population.

Rather than the oil and gas leasing stipulations for the Rocky Mountain Front described in Alternative A, we strongly favor oil and gas leasing stipulations under Alternative C. The largest remaining population of grizzly bears in the lower 48 states deserves this protection. In our view, the largest population is by no means the safest merely because it (currently) happens to be the largest. Reducing this population's security and its freedom of access to move to various food sources along the Rocky Mountain Front would be, in our opinion, to jeopardize it seriously.

One premier way to jeopardize grizzly bears is to put roads in their occupied habitat. Anecdote and research evidence exists to demonstrate that grizzlies are directly jeopardized by road construction in their habitat. As anecdotal evidence, consider that all five illegal killings of grizzly bears in northwestern Montana this spring took place near roads. As an example of research evicence, consider John Craighead's discovery that 75% of 180 known deaths of grizzlies of the Yellowstone Park area population took place outside the Park in areas of intensive land use, including roads! (See Craighead, John. "A proposed delineation of critical grizzly bear habitat for Yellowstone National Park," Proceedings: 4th International Conference on Bear Research and Management, Kalispell, MT, 1977.)

The security provided to grizzlies by the current wild state of the Rocky Mountain Front is an essential feature needed for the continued survival of the largest population of grizzlies in the lower 48 states. Retaining its wilderness characteristics will be an absolutely dominant decision in 1) retaining Montana's leadership in maintaining grizzlies and 2) retaining the nation's largest surviving population of this species, a population which currently is the brightest hope for keeping grizzlies anywhere in the lower 48 states at all.

21b

Mr. Mike Penfold
July 22, 1983

Currently, the few other populations of wild grizzlies in the 48 adjacent states are all in poor or very poor condition, in a state of crisis, and we believe that every precaution should be taken to prevent the one largest population from sinking to those same depths. The remedies for any such crisis would be very costly to the taxpayer, far more costly than any opportunity costs involved in preventing such crisis through retaining wilderness characteristics of the Rocky Mountain Front. Those wilderness characteristics, largely the current roadlessness of the area, are vital to the future of the grizzlies.

In our view, public land managed by B.M, along the Rocky Mountain Front, should not be sold. It should be retained by the American people. It could, however, be used in trades with USFS to consolidate USFS holdings, for better wilderness management along the east mountain front. Statutory wilderness designation for these areas - Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek - would be advantageous to grizzlies and to other wildlife, whether ultimately managed by USFS or BLM.

Thanks for this opportunity for us to present our concerns and views.

Sincerely,

Susan Callaghan
for Lance A. Olsen
President

LSO:sjc

24a

MINERALS EXPLORATION COALITION

Minerals Advocacy In Public Policy

12640 West Cedar Drive
P.O. Box 15638
Denver, Colorado 80215
303/989-5567

August 5, 1983

Mr. Dan Lechefsky
Project Manager
Butte District Office
Bureau of Land Management
P.O. Box 3388
Butte, MT 59702

Dear Mr. Lechefsky:

These comments constitute the response of the Minerals Exploration Coalition (MEC) to the Draft Resource Management Plan and Environmental Impact Statement for the Headwaters Resource Area. The MEC is a coalition of exploration companies and individuals conducting exploration on federal lands.

In view of the fact that wilderness areas designated after December 31, 1983, will be withdrawn from appropriation under the mining and leasing laws, we believe that all areas with mineral and energy potential should be excluded from wilderness designation, even though no economic deposit is now known. The withdrawal limitations will preclude the collection of new data, and new areas of mineral potential will not be found. With new discoveries effectively stopped, the policy of excluding all currently known mineral potential from wilderness should be followed, so that exploration of these areas will not be restricted and minerals might yet be produced. Explorationists tend to look at the long term because the lead time of discovery may be ten to fifteen years. The impact of wilderness on minerals should be assessed over the long term (a century or more). We believe that land use decisions should be in conformity with the policy statements made in the National Minerals Program Plan and Report to Congress released by the President in April, 1982.

BOARD OF DIRECTORS

*Gerald E. Rupp**
Chairman
Denver, Colorado

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Denver, Colorado

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Lakewood, Colorado

*Eliseo Gonzalez-Urien**
Lakewood, Colorado

*W. Glen Zinn**
Englewood, Colorado

**Executive Committee member*

24b

BLM/Headwaters Resource Area
8/5/83

The MEC generally endorses Alternative A, the preferred alternative, because it provides a generally balanced approach to the identified issues.

However, on the issue of withdrawals, Alternative D is preferable. Land withdrawal is a very rigid form of land use management, and in the case of withdrawal to prevent anticipated damage caused by exploration activities, the withdrawal is not necessary. Exploration by modern techniques can be carried out with minimal impact and most of that can be reduced by reclamation. Withdrawal should be used as a management tool as infrequently as possible.

Thank you for the opportunity to comment on this draft resource management plan and environmental impact statement.

Sincerely,

John D. Wells

John D. Wells
President
MINERALS EXPLORATION COALITION

JDW/th

25a

Dan Lechefsky
Project Manager
Butte District Office
B.L.M.

Dear Dan:

Enclosed are the prepared comments of the Montana Audubon Council concerning the draft Management Plan / Environmental Impact Statement for the Headwaters Resource Area. As you will note in those comments, we feel that extra time should be granted for the receipt by your office of comments on the plan.

We would appreciate receiving any comments you may have concerning our statement and we will be willing to answer any questions you may have.

Sincerely;

Gary B. Lund June 13, 1983
Council Member

cc: Harriet Marble, Council President
Jim Phelps, Past Council President
Audubon Chapter Presidents
Rocky Mountain Regional Office, N.A.S.
Jim Richards, President Montana Wildlife Federation

RECEIVED
JUN 14 1983
Bureau Of Land Management
Butte District Office

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COMMENTS OF THE MONTANA AUDUBON COUNCIL ON THE "HEADWATERS RESOURCE MANAGEMENT PLAN / ENVIRONMENTAL IMPACT STATEMENT

COMMENT PERIOD

The period of time available for comments on the plan and environmental impact statement was insufficient for the Montana Audubon Council and individual members of Audubon to review the document and gather general and specific information in relation to it. As a consequence, we feel that our comments will not be as detailed and as incisive as is necessary. We request that the period for comments be extended at least 30 days so that further public input could be received.

GENERAL COMMENTS

The appropriateness of determining the disposal of numerous and diverse tracts of public lands should not be considered in the context of a general document such as this. Our experience has taught us that the identification of values and uses for specific tracts must occur on an individual basis. For this reason we oppose the utilization of this process for determining the appropriateness of disposing of specific tracts of land.

We consider the public domain to be an important and vital national resource for conservation purposes. We oppose the sale of any public lands generally. This document is predicated upon the assumption that portions of the public domain should be sold.

We are aware that some tracts of public lands may not be appropriate for retention. Instead of sale of such lands we would advocate that such tracts as identified through careful study be utilized in trades for private lands which have been determined to be appropriate for addition to the public domain.

Any process initiated for the disposal or trade of specific tracts of public land should be predicated upon careful on site studies of land values and uses and should include a hearing process.

GENERAL COMMENTS ON THE PLAN AND STATEMENT

The Protection Alternative, "C", appears in many respects to closely resemble the Preferred Alternative "A". The significant differences appear to be those relating to wilderness designation for certain tracts. These differences arise out of land use allocation. Differences in

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management practices generally do not appear to be significant. The document contains little in the way of analysis of management practices or criteria. As a consequence, it would seem that a large percentage of the area's public lands would see no significant changes in management practices under any of the proposed alternatives. In our view, the document should be revised so that the proposed alternatives would address in more detail differences ~~in~~ general management practices under the various alternatives.

The document does not appear to explicitly address the processes and considerations for the designation and protection of unique or exemplary habitats or populations of plants or animals. This should be an important aspect of any planning process. Audubon members due to their interests in these matters are often aware of such habitats and populations and as a consequence are concerned with their recognition and protection. We feel that the plan should clearly identify processes and considerations, inclusive of public involvement, by which such recognition and protection may be achieved.

The document in presenting the alternatives and in stating the management practices intended to be common to all the alternatives, while recognizing the importance of populations of endangered and threatened species, appears to generally relegate their maintenance to that of being but another use of the public lands. Legally, their maintenance should clearly take precedence over other uses. Other uses would in areas of concern be allowable if determined after careful study to be compatible. The plan, we feel, should be revised so as to clearly state the precedence of management of endangered and threatened species. Such revision should also be reflected in the alternatives. Currently, the summary of the consequences of the alternatives indicates that there would be negative impacts on the identified populations of endangered and threatened species. The legal precedence of management of these populations is such that none of the alternatives should result in negative impacts to the populations.

The plan, generally, in identifying zones for disposal of public lands, has overlooked significant habitat and aesthetic values frequently associated with lands in those zones. Many of these lands are characterized by native grasslands. Such habitat, particularly in the valleys of western and central Montana, is becoming scarce due to land development for farming and housing. Many species of plants and animals are becoming rarer as a result. Public land tracts in such areas are an important resource in maintaining those species. Because of the changes brought on by development,

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the aesthetic value of these tracts becomes significant. We feel that the plan should be revised to recognize the habitat and aesthetic values of valley and prairie tracts of public land.

SUMMARY

In the context of the proposed plan, the Montana Audubon Council supports the land use proposals as presented in Alternative "C", the "Protection Alternative". As previously noted this support is qualified in that we find this alternative and general aspects of the plan to be deficient. Thus we would support Alternative "C" with the considerations above stated incorporated into it and the general aspects of the plan.

Gary B. Lund June 13, 1983
Council Member

Prepared at the request of Montana Audubon Council.

Any questions or responses to this statement should be sent to Gary B. Lund at 425 Clarke St., Helena, Montana 59601.

27a

June 9,1983

MONTANA 4X4 ASSOCIATION, INC.

In reply to reference 2700

Bureau of Land Management
Box 3388
Butte,Montana 59702

Alan Fraslie
Montana 4X4 Association
Four By Forum Editor
P.O. Box 1181
Dillon,Montana 59725

To Whom It May Concern:

Chapter 1 Issue 1;

What public land should be made available for oil and gas leasing?

As far as I am concerned--NONE!!

No matter how close it is managed,it will still upset the balance of nature,and the habitat for those animals which live in the area.

It also takes away the beauty of that area.When trees are cut to make room for travel,We have had enough trouble keeping the lands clean as it is.

As far as any Wilderness areas,I feel that we shouldn't over do this area.Wilderness is fine,but like anything one can go over-board. If Congress sets aside to much of our land for Wilderness it will cut back on the normal usage of the land which is what most of the people like.I think the WILDERNESS AREAS should be left AS THEY ARE FOR THE TIME BEING.

Chapter 1 Issue 7;

Why should public land be used for motorcycle racing? I feel that they should do as we (MT4A) do. Rent some PRIVATE land for such types of activity. It gives the people who want to see it a chance to do so,and those who don't care don't care a chance not to.

Chapter 1 Issue 8;

As a member of an organized Off-Road Drive Club I feel no land should be close to MOTORIZED VEHICLE ACCESS.I also do see reasoning behind closing it to seasonial demands for the area. I am not familiar with

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MONTANA 4X4 ASSOCIATION, INC.

The Jeretch travel Plan, Edge Hills or Pine Hills, has surface [illegible]

Isn't that what travel plans are for?

Thank You

Alan F. Fraslie Member MT4A

28a

MONTANA WILDERNESS ASSOCIATION

June 28, 1983

Mike Penfold
State Director
Bureau of Land Management
P.O. Box 30157
Billings, MT 59107

Dear Mike:

On behalf of the Montana Wilderness Association (MWA) I wish to comment on the draft Environmental Impact Statement and Management Plan for the Headwaters Resource Area. I regret that a conflict prevented me from testifying at the June 15 hearing in Helena. However, I trust that this letter will suffice for the time being.

Without question, this document is the most detailed and thorough RMP that I have yet reviewed. The Plan is well organized with a wealth of information. The maps are very useful, especially those which display the various oil & gas lease stipulations. However, despite the completeness of the RMP I find it difficult to determine the actual differences between the four alternatives in terms of what will actually occur to and on the land. In reading the RMP it appears that differences in management practices would not be significant, although in practice I'm sure that the actual differences would be much greater. The RMP should therefore be revised so as to better identify the differences in management practices under the various alternatives.

Although there are many positive aspects to the Preferred Alternative "A" the MWA supports the more protective Alternative "C" as a better means of balancing resource production demands with the outstanding wildland/wildlife values within the Headwaters Resource Area. In particular, we support statutory wilderness designation of the three Rocky Mountain Front WSA's: Blind Horse Creek, Chute Mountain, and Deep Creek/Battle Creek. The Bob Marshall Alliance, of which the MWA is a member, has endorsed Teton and Deep Creek national forest additions to the Bob Marshall Wilderness along the eastern front national forest boundary so as not to leave a strip of unprotected national forest land between the Bob Marshall and the BLM WSA's. Congress will soon consider the Bob Marshall additions. We are hopeful that the Bob Marshall Wilderness boundary will soon be expanded to protect as much of this great ecosystem as possible.

From strictly a wildlife and wildlife habitat protection standpoint the BLM WSA's in the critical transition zone between the prairie and mountainous forest zones are more significant than most of the national forest roadless country to the west. I have visited each of the Rocky Mountain Front BLM WSA's several times and it would indeed be difficult to find public land anywhere with a higher degree of wilderness suitability, diverse wildlife values and overall scenic beauty. In reading the RMP it was obvious to me that the Bureau was grasping for excuses to recommend against wilderness for these magnificent remnants of our wilderness heritage.

The Outstanding Natural Area (ONA) recommendations might be a good interim means of protection and I commend the Bureau for at least going that far. However, ONA designation is no substitute for the permanent enduring protection afforded only by the 1964 Wilderness Act.

By contrast, Black Sage is not nearly as high quality of an area in terms of wilder-

P.O. Box 635 • Helena, Montana 59624 • (406) 442-0597

28b

Mr. Mike Penfold
1983--page two

ness, but the area does deserve a higher degree of protection than would be provided by the Preferred Alternative. Several years ago I participated in a BLM/grazing permittee tour of the area in which we worked out a water pipeline project within the area that would be in keeping with the IMP. Black Sage is a small "island" of roadlessness that should be maintained in a semi-wild, natural condition.

Yellowstone River Island (MT-075-133) would be an ecologically unique addition to the National Wilderness Preservation System and should be so designated.

Although the ACEC recommendation for Sleeping Giant is definitely a step in the right direction the MWA strongly recommends wilderness management for this unique wild area. I personally use the are extensively for day hikes and have never failed to see wildlife there ranging from antelope to mountain goats. A Sleeping Giant Wilderness would complement beautifully the adjoining Gates of the Mountains Wilderness as well as the BLM's commitment to resource protection along the Missouri River from its headwaters to the Wild & Scenic Missouri all the way the Fort Peck. The Montana conservation community has based much of its' support for the recent 3-way Sleeping Giant land exchange on the hope that the area would eventually receive wilderness classification. With this thought in mind, we urge you to recommend wilderness for Sleeping Giant even though the area has technically been dropped from section 603 FLPMA wilderness consideration. Of course, we feel strongly that the dropping of this potential WSA was based on a legally-flawed interpretation of FLPMA and other applicable laws.

The Elkhorns (Management Unit 23) should be protected as roadless in order to complement and enhance the Elkhorns Wildlife Management Unit on the adjacent national forest land. The BLM Elkhorns unit is a contiguous part of a national prototype wildlife management area and, as such, it is far too sensitive of an area to be allocated to maximum timber production.

The oil & gas prescriptions along the Rocky Mountain Front, especially those for No Leasing and No Surface Occupancy are fully justified in terms of the key values which should be protected. However, the MWA would prefer the stronger and more encompassing stipulations of Alternative C. The Rocky Mountain Front is too special, too wild and too important for its unsurpassed surface values to be subjected to indiscriminate oil & gas activity. This wild and spectacular country--the last occupied plains habitat for the threatened grizzly bear--represents our last and best opportunity to recover the grizzly and endangered gray wolf.

I'll conclude with a brief discussion of "Asset Management", more appropriately termed "asset liquidation". Under no circumstances should any scattered "surplus" tracts of public lands be sold. These isolated tracts should either be retained in public ownership for wildlife habitat protection and public recreational access or else used as valuable "trading stock" where consolidation of public lands is needed to protect public resource values within the Headwaters Resource Area.

I ask that this letter be included in the official record of public comment on the proposed Headwaters RMP. Thank you for the opportunity to comment.

Sincerely,

Bill Cunningham
Conservation Director

cc: Dan Lechefsky, EIS Project Manager

30a

NATIONAL WILDLIFE FEDERATION

NORTHERN ROCKIES NATURAL RESOURCE CENTER
240 N. Higgins, Missoula, Montana 59801
(406) 721-6705

Mr. Dan Lechefsky, Project Manager
Butte District Office, BLM
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

The following comments regarding the plans for resource management activities in the Headwaters Resource Area are based on BLM's Draft Environmental Impact Statement Preferred Alternative A. The comments are being submitted wit the understanding they will become part of the official public record on BLM's plans for the Headwaters Resource Area lands. These comments should be viewed as supplemental to those filed by Charles Griffith, the National Wildlife Federation's regional executive for the Northern Rockies.

Generally we found the DEIS preferred alternative to provide a balanced approach to management in the Headwaters Resource Area. Several items are troubling however.

The rationale presented on page 115 and in Appendix L for designation of the Blind Horse, Deep Creek/Battle Creek, Black Sage, Chute Mountain, and Yellowstone River Island as Outstanding Natural Areas rather than Wilderness Areas is invalid. Short-term protection of these areas is simply not equivalent to the long-term protection which wilderness designation would provide. It is inconsistent to protect an area with high wilderness values only until a commercially viable product is discovered thereon. The justification that some of these areas may have high oil and gas potential fails to recognize that in some cases higher values exist than those associated with production of oil and gas.

In the Blind Horse, Deep Creek/Battle Creek and Black Sage areas public comment favored either wilderness designation or further study. Public comments relating to the Chute Mountain and Yellowstone River Island areas were inconclusive. See Appendix L. In view of these results BLM seems to be ignoring public opinion in favor of oil and

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gas and mineral production. This approach benefits mainly privately owned oil companies at the expense of irreplaceable public resources. In light of the preceeding discussion, the decision on wilderness designation for these areas should be left to Congress, not made internally by the agency. As the DEIS makes clear, if Congress were to include these lands in the wilderness system, BLM would still manage them as natural areas. Thus, Congress not the agency should make the choice of short-term versus long-term protection.

The proposed leasing plan ends to maximize oil and gas production at the expense of important wildlife habitat including that of threatened and endangered species. The leasing proposal should be rewritten to prohibit leasing on key ranges of threatened and endangered species. Further, the lease stipulations presented on pages 208 and 209 should be rewritten to protect key habitat even in the event of oil and gas discovery. As they now stand, protections are afforded only so long as oil and gas are not found. In any event, grizzly bear and grey wolf habitat should receive high priority and be improved with all due haste in accordance with the provisions of the Endangered Species Act.

The potential for viable production and the effects of coal production in the Great Falls Coal Field are spread throughout the DEIS. These factors should be consolodated and coal leasing reconsidered in that light. The factors are:

1. Removal of the coal may prove to be costly and difficult - page 60.
2. Due to high sulpher and ash content the quality of the coal is poor - page 90.
3. The production potential of the area is questionable - page 60.
4. Production will adversely affect air quality and brings with it the potential of acid rain in the Great Falls area - page 109.
5. Production may cause cyanide leaks in Helena Valley resources which are used by some homeowners for domestic water - page 110.

Consideration of these factors makes justification of coal leasing in the Great Falls Coal Field difficult.

Further, it is impossible to determine from the DEIS whether the no surface occupancy stipulations proposed for the Great Falls Coal Field and mentioned in Criteria No. 15 of Appendix H create unusable islands of land. To provide viable habitat for the sharp-tailed grouse, elk, antelope, and mule deer proper buffers and corridors must also be

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provided for.

The DEIS offers no economic justification for the timber harvest leases proposed. Past experience on Eastern Montana National Forest lands has shown even moderate silvicultural management to be economically inefficient. NEPA requires costs and benefits to be displayed, yet nowhere in the DEIS are the economics of timber analyzed. Expecially in the Rodgers Pass area which contains summer and fall grizzly bear habitat the scale tips in favor of wildlife and against timber harvesting.

Likewise, the DEIS offers inadequate justification for sagebrush control/burning projects mentioned on page 125 and again on page 127. There are high wildlife values associated with sagebrush including the elkcalving habitat mentioned on page 125. With the increasing potential of private landowners intensifying management of their land it seems that BLM has an increasing responsibility to manage for the benefit of wildlife.

Allowing motorcycle events in the Black Sage area is inconsistent with the wilderness values present there. See p. 115. Prohibition should be considered to mitigate the noise, erosion and concentration of people which these events cause.

The visual resource classification presented on page 67 of the DEIS is arbitrary and represents an unjustified value judgment. Plains areas cannot be said to be inherently lacking in scenic value. Where management decisions are based on arbitrary classifications such as this serious errors are likely to be made.

Finally, and in regard to the proposed sales and exchanges of some tracts of BLM land discussed on page 112, we believe that BLM has the authority and the obligation to transfer jurisdiction of some of its lands to other appropriate state and federal agencies rather than to put these lands up for sale. We believe that a need does exist to exchange land under BLM's stewardship which have low public values for lands which have higher public values. However, we do not believe that isolation, small size or difficult management in and of themselves render a parcel of low public value. In fact, these may be the very factors which make the property important for wildlife. In almost every case, exchange is preferable to sale of public lands.

We thank you in advance for your consideration of these comments and their inclusion in the public record.

Sincerely,

Wendy Holton

Legal Intern

31a

NATIONAL WILDLIFE FEDERATION

1412 Sixteenth Street, N.W., Washington, D.C. 20036 202—797-6800

12 Gardner Park Dr.
Bozeman, MT. 59715
July 9, 1983

Michael Penfold, State Director
Bureau of Land Management
P.O. Box 30157
Billings, MT. 59107

Lyle Fox, Area Manager
Headwaters Resource Area
Bureau of Land Management
P.O. Box 308
Butte, MT. 59701

RECEIVED
JUL 11 1983

Dear Messrs. Penfold and Fox:

As you know from previous correspondence on the BLM Assets Management Program, the National Wildlife Federation is a private citizens' non-profit conservation education association with approximately 4.2 million members, more than 10,000 of whom are Montanans who hold membership directly with NWF or belong to the NWF's state affiliate, the Montana Wildlife Federation. The Federation is deeply interested in the management and use of all federal lands, particularly in the implications of the BLM's current Assets Management Program and its effect on our public lands base.

Also, as you know, Secretary of the Interior James Watt recently announced at the Western Governors' Conference in Kalispell that he opposed the Assets Management Program, despite the earlier claims by Secretary Watt and BLM Director James Burford that the program was designed to reduce or eliminate the national debt. Recent disclosures have shown that the federal law requires only 20 per cent of the proceeds of sales of BLM and USFS lands to go to the U.S. Treasury, with 4 per cent to the state and 76 per cent to the Bureau of Reclamation. On this basis alone, the American public should reject and repudiate this program for the obvious subterfuge associated with its promotion to the public. Political chicanery aside, the National Wildlife Federation wishes to submit its comments on the Headwaters Resource Area land disposal plan's draft environmental impact statement, assuming that the land disposal program will proceed despite this obvious misrepresentation to the public. We ask that these comments be included in the public record and that full consideration be given to these suggestions in the development of final program plans by your agency. The Montana Wildlife Federation and individual members of both the national and state organizations will submit individual comments which should receive the same consideration.

In previous comments submitted to your agency regarding the Dillon and Billings Resource Area plans, the Federation asked that BLM recognize its authority to adopt alternatives to sale of public lands under its jurisdiction. These alternatives include reassignment of jurisdiction to appropriate state and federal land management agencies such as the Montana Department of Fish, Wildlife and Parks and the U.S. Forest Service. We are opposed to any release of BLM lands to the Department of

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100% reclaimed paper

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State Lands because of that agency's sorry record of managing the natural resources on lands under its jurisdiction. We also ask that a substantial portion of the lands listed for possible disposal be retained by BLM and better managed by your agency. We are not opposed to exchange of BLM lands with low public values for lands with higher public values, particularly when such lands exchanged by BLM can be maintained for agricultural purposes. The Federation is completely opposed to release, trade, sale or exchange of any lands with moderate to high public values for the purpose of promoting subdivision of these lands.

We also reiterate our position that BLM allegations that some smaller and more isolated tracts should be disposed of because of their "management difficulties" are, in most instances, incuffficient reason for loss of public lands, part of the legacy of every American citizen. Difficulty of management is, at best, a subjective consideration and poses the question of how well BLM is managing its own fiscal and manpower resources in carrying out its mandated functions. Many of these smaller and more isolated tracts are "islands" of excellent wildlife habitat and contain other valuable public features. The question ultimately resolves itself into whether BLM exists to serve the public needs or to serve its own bureaucratic comforts.

Because of the location of the Headwaters Resource Area in Montana and the importance of the Rocky Mountain Front Range to wildlife species, public use and other valuable natural amenities found within that area, the Federation is extremely concerned over possible oil and gas development and mineral extraction possibilities on the aforementioned public values. The Federation strongly supports BLM's efforts to establish and enforce stipulations on such extractive and environmentally-damaging activities.

We must commend the Bureau, its personnel and the resource area advisory committee for the orientation program it conducted on the DEIS on this area in Helena in June. This is by far the best example displayed to date of BLM attempting to educate the public to the implications of its proposed actions and to encourage public participation and involvement in the decision-making process. In general, we find the DEIS to be a professionally-prepared document. Wildlife coordination requirements appear throughout the document, demonstrating not only that a superior inter-disciplinary approach was used in drafting the DEIS but that fully professional wildlife biologists were permitted to exercise their prescribed role in this planning effort. The Resource Area planning team and supervisors should be commended for this.

In particular, the Federation congratulates the BLM personnel for their recommendations to classify outstanding natural areas on the Front Range and the classification of the Sleeping Giant tract as an Area of Critical Environmental Concern.

We are also greatly encouraged to see strong direction toward coordination of wildlife needs with commodity production objectives in this report. This is exemplified in the commitment that the cooperative elk-logging study will be continued and that evaluation of fish and wildlife habitat

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will continue on a case by case basis as part of all project level planning.

The commitment is further strengthened by the statement that roads will be constructed to minimum standards necessary to remove the timber and that all range management projects will be given inter-disciplinary review prior to final planning and action.

The Federation believes, based on years of experience with federal agency programs, that BLM must insist that this type of plan be formally adopted to assure continuity when the usual transfer of line managers occurs. This will require in-depth orientation of new employees and frequent monitoring to assure that such objectives continue to be observed and heeded. This also implies that close management direction is needed without qualifications.

If a resource involved in the planning rates special consideration and handling in a resource management plan, then it follows that extra effort must be made by BLM to assure that adequate and continuous direction is given this special resource.

The proposed direction under Water on Page 19 of the DEIS is an illustration of this. The direction proposed is good until you reach the point where the phrase "to the extent possible" appears. This phrase effectively deletes the entire purpose and direction previously stated and allows the line manager to determine riparian utility location to proceed at his own whim, rather than under prescribed direction. This is a weakness that needs further attention in the FEIS.

The Federation also reminds BLM that nothing is forever, that a Resource Management Plan sanctioned by an accepted EIS is not cast in bronze. On occasion, unusual or unpredictable events occur or circumstances arise that require management flexibility. At that time and under those circumstances, an environmental assessment or an abbreviated environmental impact statement can be prepared by BLM to alter the original EIS, provided the required public review and input processes are followed. Following this procedure will assure needed protection of a particular resource as well as assure the required public involvement in the planning and management processes.

While the Federation belives this DEIS to be the best of the three thus far released by the agency in Montana, we believe a few additional recommendations are relevant and appropriate.

As we mentioned in our comments on the Billings Resource Area plan, the Federation is uneasy with the use of Soil Conservation Service Utilization Standards. SCS grazing rates and standards are aimed at maximum livestock production and usually are not compatible with a coordinated livestock-wildlife multiple use management program. We urge that these standards not be used.

The Muskrat Allotment plan must be closely coordinated with the Elk Horns wildlife management plans now being prepared by the Helena National Forest. The proposed grazing rates for this allotment, a sensitive wildlife area, seem excessive and no mention is made of any proposed or current coordination.

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Again, the Federation strongly protests many of the criteria imposed for BLM's land disposal program. As we stated, difficulty of management used as one criteria for disposal should be considered only when the actual cost of management exceeds the public benefits derived from retention of this land. In some instances, transfer to other state and federal agencies can solve this problem for your agency.

We cannot envision any circumstance wherein sale of BLM lands from the Headwaters Resource Area can possibly meet the third criteria listed from FLMPA on Page 21 of your DEIS.

The Federation also strongly protests two statements made prefaced by the phrase "Sale will be the preferred method of disposal when:"

"It is required by national policy" - the current administration's policy obviously is predicated on an exploitation ethic and the public's ownership of the land and its rights to retain this land for its use be damned. Despite the Secretary's disavowal of the Assets Management Program at Kalispell in June, this has been the theme of the Assets Management Program and there is no indication that that theme has been changed.

"Where disposal through exchange will cause unacceptable delays" -- exchange of BLM lands historically has been a slow process, but deliberation before action better insures protection of the public legacy. We urge BLM to seek innovative approaches to land exchange such as land pooling, a method which should greatly speed up the entire procedure.

Lastly, the Federation adjures BLM to explore every possible means of land exchange or transfer of jurisdiction as alternatives to any land sales. Response to the Dillon Resource Area plan, public sentiment and the attitude of state governments and Congress are unanimous in their rejection of this administration's efforts to pander our citizens' birthright. We hope that recognition of this fact by the Secretary will trickle down to the local decision-making levels in the Bureau of Land Management.

We appreciate the opportunity to comment on the Headwaters Resource Area DEIS and compliment the staff on the bulk of their recommendations. We do, however, find BLM's disposal area-retention area concept too nebulous in some areas to allow adequate public understanding and decision.

Also, we again ask that the Federation, both national and state, be kept fully informed of BLM's intentions and plans with respect to any land disposal being considerd by your agency. Please place the following on your mailing list for all information regarding these programs:

Charles J. Griffith, Reg. Exec.
National Wildlife Federation
12 Gardner Park Dr.
Bozeman, MT. 59715

Emily Stonington, Exec. Dir.
Montana Wildlife Federation
P.O. Box 2536
Bozeman, MT. 59715

Sincerely,

Charles J. Griffith

Charles J. Griffith
Regional Executive

32a

Natural Resources Defense Council, Inc.

Public Lands Institute
1720 RACE STREET
DENVER, COLORADO 80206
303 377-9740

August 3, 1983

Mr. Dan Lechefsky
Project Manager
Butte District Office
Bureau of Land Management
P. O. Box 3388
Butte, Montana 59702

RE: Draft Environmental Impact Statement and Resource Management Plan for the Headwaters Resource Area, Montana

Dear Mr. Lechefsky:

Enclosed are the comments of the Denver office of the Public Lands Institute of the Natural Resources Defense Council, Inc. on the Draft Environmental Impact Statement and Resource Management Plan for the Headwaters Resource Area. Comments on the range management sections of the RMP/EIS will be sent under separate cover by our San Francisco office, and should be considered part of these comments.

We appreciate the opportunity to review and comment on this proposal. If I can be of assistance to the project team, please do not hesitate to contact me at the above address and telephone.

Sincerely yours,

Carolyn R. Johnson

Carolyn R. Johnson
Senior Public Lands Specialist

CRJ:kmm

Enclosure

32b

Natural Resources Defense Council, Inc.
Public Lands Institute
1720 RACE STREET
DENVER, COLORADO 80206
303 377-9762

COMMENTS OF THE

NATURAL RESOURCES DEFENSE COUNCIL, INC.
AND ITS PUBLIC LANDS INSTITUTE

ON THE

DRAFT ENVIRONMENTAL IMPACT STATEMENT
AND RESOURCE MANAGEMENT PLAN FOR
THE HEADWATERS RESOURCE AREA

Prepared by:

Carolyn R. Johnson
Senior Public Lands Specialist

Eric Hildebrandt
Intern, Policy Analysis

Florence Munter
Consultant

32c

Introduction

Although the draft Headwaters RMP/EIS is an improvement over the piecemeal approach to land-use planning based on Management Framework Plans which has been used in the past, the RMP/EIS falls short of meeting the statutory and regulatory requirements for comprehensive planning and analysis. The major deficiencies of the draft RMP/EIS are detailed in the following comments. The range management portion of these comments has been sent by our San Francisco office under separate cover.

Alternatives

In formulating the different alternatives analyzed and compared in the RMP/EIS, different goals and objectives were not developed for each resource in each alternative. (See Table 2-15, p. 47). In many areas, there is little or no difference in the proposed management actions for each alternative, making the comparative evaluation of impacts in the document extremely limited. Some examples of management goals and proposed actions that could be modified to achieve a greater range of alternatives are given below:

1. The RMP/EIS has recognized the general effects of the timber industry on wildlife habitat (especially aquatic habitat) and on recreational resources (pp. 114, 118-120), yet the acres to be harvested are the same for the preferred, no action, and protection alternatives. Why not consider different levels and locations of timbering, and analyze the impacts on specific habitat and recreational resources? This would allow for trade-offs between these resources to be analyzed, and the incremental "costs" of timbering in terms of wildlife and recreation to be identified.

2. The general pro's and con's of land disposal and exchange in the resource area are carefully analyzed on pp. 112-113. Although the analysis is

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very general, it accurately recognizes that trade-offs exist between a rapid program of land disposal and a more gradual program emphasizing land exchange. However, the amount of land for potential disposal is the same for the preferred, protection, and production alternatives.

3. All four alternatives include the economic costs-benefits associated with range use and oil and gas development as well as the approximate number of jobs created with the timber industry. We believe detailed cost-benefit analyses are required for other non-market resource uses as well as the ones named above. Detailed or quantitative economic analyses of recreational use (motorized as well as non-motorized, hunting/fishing use), wildlife forage allocation (as this relates to hunting activity, for instance) and wilderness preservation would provide a more complete, detailed basis for comparative analysis. Such analysis would provide a better range of alternatives and could change parts of the preferred alternative BLM selects. For example, the inclusion of such data and analysis did lead to a significant change in the Bureau's final proposed plan for the Glenwood Springs Resource Area in Colorado. There, it was discovered through the economic analysis of the wildlife and livestock forage allocation for the Economic Development and Resource Protection alternatives that increasing wildlife forage allocations would result in greater economic benefits, primarily through the impact increased hunting opportunities would have on the area's economy. This was unexpected to the BLM staff who prepared the draft RMP/EIS, and the final plan was adjusted to increase wildlife forage.

There are other modifications to the alternatives section which are required or which deserve attention. These major areas are discussed individually. A change in approach in many of the areas discussed would substantially alter the range of alternatives.

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Resource Inventory and Data

More inventory and data -- especially on many "non-market" resources -- is necessary in the RMP/EIS to allow comparison and integration of information concerning all the various land uses BLM is required to consider under FLPMA (see Sec. 103(c)). Eroded and erosion hazard areas, areas of heavy ORV use, localized sources of water pollution, unsatisfactory riparian habitat and different types of recreational use which are briefly mentioned in the Chapters on Affected Environment and Environmental Consequences should be identified on map overlays and quantified to the greatest extent possible. By slighting some resources at the outset of the planning process -- during inventory -- final RMPs tend to end up emphasizing commercial land users over balanced land management. We would like to note the excellent knowledge on fish and wildlife shown in the document; however, to make the information presented in the document more meaningful to the reader (and presumably, to the rest of the BLM planning team) the RMP/EIS should include information on crucial winter habitat, wildlife populations, and the relationship of public lands (administered by BLM) to the surrounding areas (administered by state, other federal agencies or private owners) with respect to wildlife habitat and populations.

In some places, the RMP/EIS states that information, such as soil surveys, are still being collected (pp. 56-57) or that additional information on water resources and timbering, for example, is available at the area office (pp. 57, 86). However, the information in the RMP/EIS and the manner in which it is presented do not indicate that BLM has made an appropriate effort to assemble all available information; to collect additional information emphasizing "significant issues and decisions with the greatest potential impact"; and to integrate and present this information "in a manner that aids application in the planning process" (43 CFR 1610.4-3(a)). Since public participation is a major

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element of the planning process outlined by FLPMA and BLM planning regulations, all information relevent to planning decisions should be presented or summarized in an easily usable form in the RMP/EIS. Because multiple-use management involves the integration of many different land uses and inventory data, map overlays and quantitative tables are particularly useful to the reader (and, presumably, to the BLM planning team). Where important information is unavailable because of present budget and time constraints it would also be helpful to the public and future BLM management to specifically identify these data gaps in the document. Indeed, BLM planning regulations require that RMPs generally state where there is a "need for an area to be covered by more detailed and specific plans." (43 CFR 1601.0-5(k)(8)).

Soil and Water Resources

All the alternatives in the RMP/EIS lack comprehensive and specific analysis and proposals to improve or maintain the area's soil and water resources upon which grazing, wildlife and many human activities ultimately depend. The general discussion of soil and water resources in the chapters on Affected Environment and Environmental Consequences (pp. 56-57 and 109-111) indicate that erosion problems and localized sources of water pollution exist in the area -- often from past mining practices and overgrazing -- which could have long-lasting or irreparable consequences if allowed to continue. As the EIS itself notes "soils that now show symptoms of erosion will be seriously impacted by any soil-disturbing activities (and) rehabilitation of these soils will be more difficult because of past losses of topsoil and nutrients" (p. 109). Similarly, coal and gold mining could result in serious impacts on ground-water resources, including the water source of many homeowners near Helena (p. 110).

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The EIS states that under the preferred plan, "BLM would try to prevent, rather than mitigate the degradation of water quality . . . by reviewing activities before they happen, and following applicable laws and regulations . . ." (p. 110). However, a closer analysis reveals that the preferred plan in fact contains no such concrete preventive measures for identified and potential sources of water degradation. A proposal to withdraw portions of the Scratch Gravel Hills from mineral entry to protect ground-water from cyanide contamination, for instance, is rejected in the Preferred Alternative because numerous mining claims in the recharge area would be unaffected by the withdrawal. Instead, reliance is placed on federal and state regulations which, by BLM's own admission, are considered adequate if the enforcing agencies are funded adequately (and it should be added, if these agencies effectively carry out regulations) (p. 52). Similarly, although underground coal mining could seriously disrupt ground-water (p. 110), all federal coal within the Great Falls Coal Field is available for further consideration for coal leasing in the preferred plan, which relies on future, unspecified lease stipulations and mine plan review to prevent ground-water resource problems (p. 53). Regulations themselves are not a mitigating measure, and no analysis supports the conclusion that BLM need do nothing but rely on existing regulations.

Throughout the plan, in-depth analysis of how soil resources could be protected through specific management actions and restrictions are also missing. The proposed plan calls for 219,000 acres (where erosion and land use conflicts presumably exist) to be "prioritized for restrictions" (p. 40). However, no specific restrictions are proposed, no clear explanation of why these areas have been chosen or where they are located is given, and there is inadequate analysis of the environmental impacts on the different acreages proposed for restrictions

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under each alternative (see Environmental Impacts section). In Appendix E, allotments with erosion, water, and vegetation problems are identified -- and improving these conditions is stated as a management objective -- but specific management actions to achieve these objectives are generally not proposed. Similarly, although road construction and use represents the most significant impact on soils from most types of land use and development (p. 109), the RMP/EIS lacks any form of comprehensive transportation planning and analysis. The total miles of roads necessary for access, the ecological and visual impacts of these roads and the cost of building the transportation system can often be greatly reduced by long-term, comprehensive transportation planning. Major factors in transportation planning should include projected use, the visual and ecological sensitivity of various alternative transportation corridors, and the various land-use restrictions which can be used by land managers.

Rather than analyzing soil and water resources and proposing land use designations or management programs to protect these resources, the RMP/EIS merely assumes that "in general, impacts to soil and water resources can be mitigated on a site-specific basis through the application of standard operating procedures and the general best management practices listed in Appendix C" (p. 110). No analysis is presented showing these practices do accomplish the necessary mitigation. FLPMA clearly requires that"the public lands be managed in a manner that will protect the quality of the water resource" (Sec. 102 (a)(8)) and the "harmonious and coordinated management of the various resources without impairment of the productivity of the land" (Sec. 103 (c). (Emphasis added). As it stands, however, the RMP/EIS offers no preventive analysis and management proposals for soil and water resources. Future activities affecting these sensitive resources would have to be continually analyzed on a case-by-case basis to determine impacts and mitigating measures to comply with the

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requirements of FLMPA. Protection of soil and water resources -- which often deteriorate in bits and pieces which accumulate over time, or are irreparably impacted after mining or other activities have occurred -- requires an approach based largely on preventing significant individual impacts and unacceptable cumulative impacts, rather than attempting to mitigate adverse impacts on a case-by-case basis.

As BLM's master land-use plan for the Headwaters area, the RMP/EIS should also contain thorough analysis and management actions for all resources -- including water potentially impacted by hardrock mining in the Scratch Gravel Hills and coal mining in the Great Falls Coal Field -- even though other state and federal agencies may share the responsibility for protecting these resources. The fact that other agencies share responsibility for protecting these resources does not lessen BLM's statutory and regulatory obligation to protect these resources and to propose concrete ways of doing so.

Forestry

All the alternatives propose a dramatic increase in timbering activities -- from 1 million board feet per decade to over 26 million board feet -- without explaining why such heavy emphasis is being placed on timbering. Why was this increase selected? As the RMP/EIS notes, timbering is currently very limited in the area and conditions are not particularly favorable for timbering, as "much of the timber is in small stands, some of which are quite isolated" (p. 105). The brief analysis of the economic importance of timbering indicates increased timbering would result in very small economic benefits (p. 105). There is no comparison of the costs of the timbering program in relation to the benefits, and the environmental impacts analysis of timbering is so superficial and non-specific that it is essentially meaningless. For instance, impacts of road

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construction associated with timbering "may be positive or negative," according to the EIS, while impacts on wildlife and grazing "would be in the form of increased or decreased forage and cover" (p. 166).

At the same time, the very limited information concerning timbering which is given in the EIS suggests the costs of logging in terms of public funds and other resource uses would be considerable. In contrast with the conventional forest practice of not logging on slopes over 40 percent, the RMP would allow tractor logging on slopes with average gradients of up to 50 percent (p. 24). Much of the timber in the area is found in small, isolated stands and, consequently, these timber areas have unusually high value as wildlife habitat, watershed, and visual resources. The economic and environmental costs of road construction, visual impacts, disturbance of habitat and watersheds, and decreased recreation opportunities would be extremely high in relation to the timber produced.

Establishing a permanent timber industry in areas marginally suited for timbering requires dedicating large tracts of public land and scarce public funding to this single purpose. If BLM drastically increases timbering in the Headwaters area, the agency is likely to end up subsidizing uneconomic timbering operations at the expense of taxpayers and truly economic timbering operations in other parts of the country, such as the Pacific Northwest. Timbering is but one of many ways in which local economics can be stimulated, and because of the large capital investment needed in this type of industry -- road building, logging and milling -- the number of jobs created per tax dollar expended is often quite low compared to that of some alternatives, such as management programs which enhance recreation and tourism.

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Wilderness

One of the most objectionable aspects of the RMP/EIS is that it fails to recommend any of the WSAs for wilderness designation in the Proposed Alternative. In particular, the three areas along the Rocky Mountain Front have high wilderness values yet BLM rejects wilderness designation because, according to the rationale in the RMP/EIS, these areas 1) "pose significant manageability problems," and 2) "may be underlain by oil and gas" (p. 52). The first point concerning manageability of these areas is unsupported throughout the RMP/EIS and is, in fact, contradicted by several statements in the descriptions of each individual area. Although the Blind Horse Creek is the only WSA with a small private inholding, the RMP states that "the area stands as an independent study area due to strong public support and its ability to be managed in an unimpaired condition" (p. 75). (Emphasis added). Meanwhile, there is no mention or explanation in the RMP/EIS of why the Chute Mountain and Deep Creek/Battle Creek WSAs could be considered difficult to manage. On the contrary, since both areas have no non-BLM inholdings and would be tack-ons to the Deep Creek Further Study Area, management should present no insurmountable difficulties for the managing agency.

The only other reason given for not recommending the three WSAs along the Rocky Mountain Front is the potential for oil and gas development in those areas. By itself, this potential by no means outweighs the multiple-uses wilderness designation would enhance or preserve: habitat for wildlife, including threatened and endangered species; wilderness recreation; high scenic values; watershed protection; and added ecological and scenic diversity to the adjacent Forest Service Further Study Areas. The RMP/EIS presents no support that the energy potential does outweigh the wilderness values. Consequently, it would be

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appropriate for BLM to recommend all three WSAs on the Rocky Mountain Front as suitable for wilderness pending completion of Forest Service studies of adjacent study areas.

Special Designations

Although the areas proposed for designation as Outstanding Natural Areas should be recommended for Wilderness designation, several statements in the RMP/EIS concerning ONAs and ACECs need to be clarified. Nowhere does the RMP/EIS adequately explain why the WSAs were only considered for ONA designation, and not for ACEC status. When we posed this question in a telephone conversation with a BLM staff member, the only explanation we received was that it was "pick and choose" between the two designations. The explanation on p. 18 of the document seems to imply that a resource of national significance should be designated as an ONA rather than an ACEC. However, the planning regulations and final guidelines entitled "Areas of Critical Environmental Concern: Policy and Procedures Guidelines," issued August 27, 1980 clearly state that the criteria for ACEC designation include "importance" (qualities generally beyond local significance and special worth) and "relevence" (significant historic, cultural, scenic values; natural process; fish or wildlife resource).

Our concern is that the public, as well as BLM itself, should be clearly aware of the distinction between these two designations and that each is used whenever appropriate.

Land Tenure

The inventory of lands within the disposal category and the analysis of impacts of proposed land disposal are clearly inadequate to fulfill the requirements of FLPMA and NEPA. The RMP/EIS does not identify or describe the

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specific resource values of the land within the disposal category, nor does the document explain how selling any of these tracts meets the criteria for land disposal contained in FLPMA Sec. 203 (a)(1)(2)(3). Although land exchanges are likely to enhance both public and private resource values and land uses in many cases, while the potential benefits of land sales are much more limited, the RMP/EIS combines both forms of land tenure adjustment into one general category of "land disposal". Furthermore, the conditions under which sale will be the preferred method of disposal are so general and ambiguous that it appears nearly all the 25,637 acres in the disposal category could be sold, rather than exchanged.

We are aware that a major change in guidance from the national administration concerning land disposal has occurred since the RMP/EIS was prepared. We heartily endorse the approach outlined in State Director Michael J. Penfold's recent statement that the Montana BLM intends "to focus on exchange where we can trade isolated parcels that are difficult to manage and acquire lands that will enhance the public estate, particularly areas with scenic, recreation and wildlife values."[1] If, as Mr. Penfold's statement suggests, BLM is returning to the "routine program that the public has supported" in the past, the quantity of land designated for land disposal should be greatly reduced in the final RMP/EIS. In order to achieve Mr. Penfold's goal of ensuring that "decisions on what to sell or trade are made locally," after the Western public has "had a chance to have some 'say' in the decision," future site-specific decisions regarding land ownership adjustments should continue to be accompanied by tract-specific land use plan amendments, with opportunities for public comment and protest pursuant to 43 CFR 1610.2, 1610.5-5 and 1610.5-6.

1. Statement from Michael J. Penfold, Montana State BLM Director, regarding BLM News Release, July 29, 1983.

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Coal

The preferred alternative includes coal leasing in the Great Falls Coal Field despite the economic and environmental unattractiveness of developing the coal. Development is admitted to be unlikely given the high ash and sulphur content of the coal, in addition to the expense of underground mining of thin coal beds (pp. 60, 105, and 131). The soft coal market and abundance of coal available through existing leases and mines further emphasizes the unlikelihood of the need to lease this coal. No justification is presented for the staff's preference of further study of coal leasing in this area. Why was this choice made? We recommend that leasing of the 125 million tons of federal coal in this area not be included in the preferred alternative.

In addition it would appear the RMP/EIS does not adequately present nor answer the coal leasing issue presented on p. 12; that is, what portion of the Great Falls Coal Field should be made available for further leasing? No alternatives of leasing any portion of the coal field were analyzed -- only to lease all the field or none.

The RMP/EIS presents a commendably detailed discussion of how the lands unsuitability criteria were applied and what results were obtained (Appendix H). Many other RMP/EISs lack such a thorough treatment which makes it difficult for the public to review the document, weigh the choices, and make suggestions. Two changes are needed to the Headwaters plan: to obtain basic inventory data that is lacking on resources such as historic, archeologic and cultural sites, and bald and golden eagles; and to correctly apply Criteria Nos. 3 and 16. The analysis of No. 3 states subsidence and tension cracks in roads can be repaired so that road conditions are equal to or better than those existing. We know of no evidence supporting this in the underground coal fields of Colorado and Utah; in fact, experience indicates the opposite is true. Criterion No. 16 states

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100-year flood plains "shall be considered unsuitable unless" it is determined substantial demage is not threatened by mining; however, the analysis improperly reverses the criterion, leaving three floodplains as suitable for mining until proven unsuitable.

Environmental Consequences

The impact analysis contained in Chapter Four is clearly inadequate to fulfill the requirements of NEPA and BLM planning regulations, which require BLM to "estimate and display physical, biological, economic and social effects of implementing each alternative in detail" (43 CFR 1610.4-6). (Emphasis added). In many cases, impacts may be difficult to assess "in detail" because management goals and proposed actions are missing, ambiguous or so general that they are impossible to meaningfully assess or quantify. (See Comments by topics). As described below, the RMP/EIS fails to go beyond merely generic, "text-book" descriptions of impacts on many major resources. Although we recognize that many impacts are difficult to quantify and assess on a site-specific level, cumulative impacts can be estimated and impacts may be stated in terms of "probable ranges" where "effects cannot be precisely determined" (43 CFR 1610.4-6).

Soils and Watershed: Although the EIS recognizes that the main impact from many types of development is the construction and use of roads (p. 109), no attempt is made to quantify or estimate the total amount of roads needed under each alternative. An estimate for timbering roads needed is given under the section on forestry, but this is the same under all alternatives and is presumably not the result of comprehensive transportation planning and analysis. The RMP/EIS contains no support or explanation for the conclusion that "(t)here will be approximately a 2,000 acre decrease in unsatisfactory watershed conditions . . . based on changes in grazing allotment management" (p. 111), and no attempt is

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made at reaching a similar estimate of the total cumulative effect of all other activities under each alternative.

Recreation Resources: Again, the RMP/EIS contains an accurate general discussion of potential general impacts, but there is no attempt to apply the general knowledge to the "on-the-ground" situation in the Headwaters Resource Area in order to estimate the impact of each alternative on recreation "in detail."

Visual Resources: The RMP/EIS contains no detailed analysis of visual resource impacts. The document merely states that if Class A is managed to retain visual quality "there should be minimal adverse impact" and that "some significant adverse impacts could occur" if suitable visual quality objectives are not applied on scenic quality Class B and C land (p. 115). Nowhere in the RMP/EIS are these objectives described. Adequate analysis of visual impacts, of course, is inhibited by the fact that none of the alternatives actually contains a visual resource management program; each merely proposed to continue evaluating visual resources "as a part of activity and project planning" (p. 23). Although the levels and types of development that would occur under each alternative would presumably vary, the EIS unexplicably concludes that visual impacts would be the same under each alternative (pp. 115, 133, 141 and 149).

Wildlife: The most detailed analysis in the EIS concerns wildlife, yet the analysis is limited to acreages of general habitat that would be positively or negatively affected. The analysis should also consider impacts in terms of wildlife populations and crucial habitat, which is often the limiting factor for wildlife populations.

Social and Economic Conditions: The only detailed or quantitative economic analysis is presented for grazing, timbering and energy development. Similar analysis is necessary for Recreation, Wilderness, Land Disposal, Visual

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Quality (as it might affect land values, uses and tourism) and Watersheds (e.g., what would be the economic impact if water resources in the Scratch Gravel Hills or the Great Falls Coal Fields were contaminated or disrupted?)

Because of the difficulty of assessing the "true" costs and benefits of many "non-market" land-uses in economic terms, we do not propose that multiple-use decisions be reduced to a series of economic analyses. However, by devoting more planning resources towards identifying and estimating the economic value of "non-market" resources, better comparisons and decisions can be made between market and non-market land uses. (Also see Alternatives Section).

Summary

We do not believe the draft RMP/EIS fulfills the regulatory and statutory intent and requirements in several significant respects. The alternatives do not present an adequate range of choices, and fail to include sufficient inventory data, specific management proposals and impact analysis for many fundamental management concerns such as soils/watershed, forestry, coal leasing, wildlife, recreation and land-tenure. As described in our comments, there is no indication that BLM has made a concerted effort to properly inventory the resource area, use all available data, and collect, use and present this in an integrated, usuable form. These deficiencies not only preclude meaningful public input and review, but also indicate BLM has not utilized the thorough, interdisciplinary planning process prescribed by FLPMA and NEPA.

The identified deficiencies justify a comprehensive supplement to this draft RMP/EIS. The additional information, planning, and analysis that is required to make this RMP/DEIS a comprehensive planning and analytical document would substantially change the scope and content of the existing document. For these reasons, the public, and local, state and federal agencies should be given the opportunity to comment on the content of another draft RMP/EIS.

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Natural Resources Defense Council, Inc.
25 KEARNY STREET
SAN FRANCISCO, CALIFORNIA 94108
415 421-6561

Washington Office
1725 I STREET, N.W.
SUITE 600
WASHINGTON, D.C. 20006
202 223-8210

New York Office
122 EAST 42ND STREET
NEW YORK, N.Y. 10168
212 949-0049

August 5, 1983

Dan Lechefsky, Project Manager
Bureau of Land Management
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

Enclosed are NRDC's comments on the Headwaters Draft RMP/EIS. I apologize for submitting them on August 5, the final day of the comment period. However, the comments were prepared in response to a specific, recent request from your Washington office. Given our other obligations, we were unable to prepare the comments any sooner than today.

I assume that you will give full consideration to these comments in the subsequent land use planning process. I hope you find them helpful. Thank you for your consideration.

Sincerely,

David B. Edelson

cc: Ed Fisk

New England Office: 17 ERIE DRIVE • NATICK, MA. 01760 • 617 655-2656
Public Lands Institute: 1720 RACE STREET • DENVER, CO. 80206 • 303 377-9740

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Natural Resources Defense Council, Inc.
25 KEARNY STREET
SAN FRANCISCO, CALIFORNIA 94108
415 421-6561

Washington Office
1725 I STREET, N.W.
SUITE 600
WASHINGTON, D.C. 20006
202 223-8210

New York Office
122 EAST 42ND STREET
NEW YORK, N.Y. 10168
212 949-0049

August 5, 1983

Dan Lechefsky, Project Manager
Bureau of Land Management
P.O. Box 3388
Butte, Montana 59702

Re: Headwaters Draft Resource Management Plan
Environmental Impact Statement

Dear Mr. Lechefsky:

We have reviewed the grazing allotment and riparian habitat management provisions of the Headwaters draft RMP/EIS and submit these comments on behalf of the Natural Resources Defense Council, Inc., (NRDC) and its Public Lands Institute. We incorporate by reference the comments on the other provisions of the plan submitted by the Public Lands Institute.

The range management provisions of the Headwaters RMP/EIS suffer from most of the same basic deficiencies that we have repeatedly pointed out, both in our comments on other recent grazing EISs and in our recent judicial action asking the judge in NRDC v. Morton to rule that several EISs fail to satisfy the minimum requirements of the National Environmental Policy Act (NEPA). As detailed below, the Headwaters EIS is inadequate because it lacks: (1) adequate site-specific proposals; (2) a reasonable range of alternatives; (3) detailed and substantiated environmental impact analysis; (4) sufficient information on range condition and resources; (5) comprehensive, cumulative analysis of the impacts of all proposed resource activities, as required by the Federal Land Policy Management Act; and (6) a proposed action that resolves resource problems as quickly as feasible. Although the EIS contains certain commendable features with respect to format and descriptions of resource problems, the document's range management section is fundamentally inadequate and should be rewritten in order to comply with legal requirements.

1. Site-Specific Proposals

The BLM is required by the judgment in NRDC v. Morton to analyze in EISs specific proposals to issue and renew grazing permits. These proposals must include, for each allotment, numbers of livestock, seasons of use, utilization levels, and all other necessary terms and conditions of grazing, including grazing systems. See 43 C.F.R.

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§§ 4120.2, 4120.2-1(a), 4120.2-3(a) (1982). The proposals contained in the Headwaters EIS lack some of these basic elements.

Although the EIS proposals include livestock numbers and incorporate, for the most part, existing seasons of use, they lack any specific grazing systems and contain utilization levels only for a fraction of the allotments. Existing grazing systems are not described for each allotment, and no specific grazing systems are proposed; instead, the EIS merely describes general types of grazing systems that might conceivably be implemented in unspecified allotments in the future. (EIS, p. 25 & App. G.) The EIS fails to include existing utilization levels, even though such levels presumably will continue under the "no action" alternative. Moreover, specific utilization levels are proposed only for a few Category I allotments (e.g., App. E, p. 228) and no such levels are proposed for any Category M or C allotments.

The EIS does contain, at least for Category I allotments, the objectives that a specific grazing management program should meet in each allotment. See App. E. However, for the most part it fails to identify or analyze any specific actions that must be taken to achieve these objectives. The Bureau's "objectives" are stated in general terms like "improve the riparian habitat," "improve vegetative cover and livestock distribution patterns," and "limit livestock utilization" (e.g., pp. 222-23), but few specific actions that will attain these ends are identified. Such proposals are particularly important since, as the Bureau admits, "implementation of grazing systems" and other specific actions are necessary to attain these objectives, and the EIS's impact analysis depends upon the development of such unidentified actions. (E.g., pp. 117-18, 143.) With respect to Category M and C allotments, the EIS even lacks specific management objectives, much less specific proposals. See App. E.

The EIS also lacks any specific forage allocations for wildlife or non-consumptive uses. It states that "sufficient" forage will be provided for wildlife (p. 29) but never identifies how many AUMs will be reserved for wildlife, either in the entire area or in particular allotments. Given the specific forage allocation proposals for livestock, it appears that the Bureau will first allocate forage to livestock and the remainder, if any, will be available for wildlife and non-consumptive uses. This approach is unacceptable. The EIS should make specific forage allocation proposals for uses other than livestock grazing in order to ensure that "sufficient" forage is available for such uses.

2. Range of Alternatives

The court in NRDC v. Morton required EISs to "discuss in detail ... all reasonable alternatives" to proposed livestock grazing

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activities. To satisfy this mandate, the alternatives must encompass significantly different levels of livestock grazing, including "no grazing," and a full range of management practices. The grazing alternatives in the Headwaters EIS fall far short of these requirements.

The alternative livestock forage allocations in the EIS do not vary significantly. There is little difference even between the resource protection (27,036 AUMs) and resource production (33,954 AUMs) alternatives. The resource production alternative is not "meaningfully lower" than the proposed action, as the Bureau has previously acknowledged is necessary. "Draft Guidelines for Preparing Grazing EISs," p. 23 (April 1979). Moreover, the EIS lacks a "no grazing" alternative, which is necessary in order to provide a baseline for comparison of all other alternatives and to protect riparian and other degraded resources. See Draft Guidelines, at 23; "Final Grazing Management Policy," p. 1-18 (I.M. No. 82-292, March 5, 1982). Thus, it is clear that the Bureau has already decided to maintain stocking levels at approximately the existing numbers and that the consideration of alternatives in the EIS has been a mere formal exercise.

The EIS obviously lacks a "full range of management practices," as required by the Final Grazing Management Policy, supra, at 1-18. In fact, the EIS fails to consider any alternative management practices. For example, the alternatives do not include any different grazing systems, utilization levels, or seasons of use. The Bureau has demonstrated in other grazing EISs that it can consider a range of alternative grazing systems, seasons of use and utilization levels for each allotment. See, e.g., Southern Malheur Draft Grazing EIS, Vale District, Oregon (1983); Willow Creek Final Grazing EIS, Susanville District, California (1982). The absence of such alternatives in the Headwaters EIS is a critical flaw.

The discussion of alternatives in the EIS is inadequate for other reasons. First, the "no action" alternative contains proposed range improvements and long term forage allocation adjustments (Table 2-5, p. 32; Table 4-9, p. 134), and thus does not really constitute a no action alternative, as required by NEPA. See 40 C.F.R. § 1502.14(d) (1982). Second, the "protection" alternative is self-contradictory because it seeks to advance conflicting goals. If, as the EIS acknowledges, a single alternative cannot realistically "achieve wildlife, watershed, and vegetative" objectives simultaneously (p. 143), then the EIS should include alternatives or sub-alternatives that would advance these individual resource goals. Without such an analysis, the Bureau will never analyze what management actions are necessary to provide full protection for these resources, thereby precluding such actions before they have even been considered.

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August 5, 1983
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3. Environmental Consequences

The EIS's discussion of environmental impacts to range resources is extremely generalized and unsubstantiated, and thus fails to satisfy NEPA's requirements. The judgment in NRDC v. Morton requires EISs to analyze "the actual environmental effects of particular [grazing] permits or groups of permits in specific areas." Although the Headwaters EIS sets forth aggregate figures that summarize anticipated impacts of proposed grazing to range resources (e.g., pp. 116-18), it completely lacks the "individualized assessment of the impact of such grazing on local environments" required by NRDC v. Morton. The EIS must analyze and describe environmental consequences to particular allotments, not just aggregate impacts to the entire area.

The EIS also fails to substantiate the environmental impacts predicted, as required by NEPA. It lacks any analysis of the predicted impacts of implementing particular proposals, such as grazing reductions or modifications, in particular allotments. It also lacks any general discussion of why certain kinds of actions might have certain types of effects under various resource conditions. Thus, the EIS totally fails to comply with NEPA's requirement that EISs must demonstrate that the agency has conducted the environmental analyses necessary to substantiate predicted conclusions. See, e.g., 40 C.F.R. § 1502.1, 1502.24 (1982); Department of the Interior, Departmental Manual on NEPA, § 4.14 (45 Fed. Reg. 27546 (April 23, 1980)).

Finally, the environmental impact analysis is also unsatisfactory because it is based on hypothetical proposals that have yet to be identified. For example, predicted improvements are "dependent upon implementation of grazing systems, installation of range improvements, and performance of land treatments" (p. 117), even though no such specific proposals are identified or analyzed in the EIS. Similarly, "improvement in riparian condition" is premised upon unidentified "livestock grazing systems ... [and] season-of-use changes." (p. 120). The BLM cannot simply expect the public to trust that appropriate actions will be identified in the future and that as a result resource problems will be resolved.

4. Range Condition and Resource Information

The EIS contains estimates of current grazing capacity in most allotments, but lacks other important range condition and resource information needed for the reader to assess the impacts of the proposed actions. The statistical data on range condition (App. D) is useful, but it must be supplemented by descriptive information in order to ascertain and analyze specific resource problems. Such descriptions are clearly presented for Category I allotments (App. E), and we

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commend the agency for providing such specific information. However, no such descriptions are offered for Category M or C allotments, suggesting that the agency has impermissibly written these areas off.

The Bureau's failure to analyze resource problems in many allotments reflects a broader deficiency of the EIS's land categorization proposals. The EIS announces categorization decisions but lacks any discussion of how particular decisions were made. Without descriptive information on resource problems and opportunities in all allotments it is impossible for the reader to assess the proposed categorization decisions. The EIS should provide such descriptions for all allotments and should analyze how the categorization criteria were applied to reach these proposed decisions. The public would then have a meaningful opportunity to comment on the categorization decisions, as contemplated by the "Final Grazing Management Policy," pp. 1-11 to 1-15. As written, the Headwaters EIS effectively bars the public (other than ranchers) from taking part in these important decisions.*

The EIS also fails to present available range monitoring data, describe the data necessary to make management decisions, or specify when and how such data will be obtained. The EIS states that livestock use adjustments will be based in part on "monitoring" (p. 25) and also acknowledges that some monitoring data are available (App. N, p. 296). However, these monitoring data are not described, and the EIS never specifies what kind and amount of monitoring data are necessary to make grazing decisions. In particular, the EIS fails to explain if and why available data are inadequate, and why such data cannot be extrapolated to make necessary grazing decisions as soon as possible in similar allotments lacking such data. Without such explanations, the public will never know which data are "acceptable" to support actual grazing decisions, and such decisions may be deferred indefinitely. See 43 C.F.R. § 4110.3-2(c) (1982). Finally, the EIS lacks specific information about all wildlife other than grizzly bears. For the most part, it fails to describe specific conflicts between wildlife and livestock in particular areas, and instead presents aggregate estimated numbers of wildlife and acres of wildlife habitat. Nor does it describe specific critical habitat areas. Without such detailed information, the reader cannot assess whether the proposed action or the alternatives would adequately resolve existing resource problems.

*The EIS also announces two possible prioritization schemes for category I allotments, as well as "final" management priorities. (App. E). It is unacceptable for "final" decisions to be made prior to public comment and selection of the preferred alternative. To establish "final" decisions at this stage of the process makes a mockery of NEPA's requirement of full disclosure and public participation prior to agency decisions.

33g

Dan Lechefsky, Project Manager
August 5, 1983
Page Six

5. Comprehensive Impact Analysis

As a land use planning document, the Headwaters RMP/EIS begins well by recognizing that its purpose is to provide a comprehensive framework for managing and allocating public land and resources by resolving particular resource problems. (EIS, p. 1.) Unfortunately, the document does not follow through with this approach in its analysis of range management. The EIS lacks any cumulative analysis of the consequences on range, wildlife, and other resources of implementing the diverse aspects of the proposed plan, such as oil and gas leasing, land disposal, and livestock grazing. The EIS only analyzes the impacts of particular types of activities on various resources, without considering cumulative and synergistic effects. Nor does it analyze the extent to which certain activities, such as leasing and land disposal, may preclude the agency from implementing other activities, such as wildlife or livestock use. In short, the environmental analysis is too fragmented to be very useful in formulating a coherent, comprehensive land use plan.

6. Proposed Action

In addition to the above-mentioned deficiencies of the Headwaters RMP/EIS as an analytical and planning document, its proposed action for range management is also inadequate in several ways. The EIS acknowledges that the "initial proposed action" is "no action." (p. 15). Such an approach is unacceptable given the resource problems that admittedly exist in the area. Moreover, additional monitoring is not needed to make adjustments in existing grazing use where, as here, available range information clearly demonstrates the need for such changes. Nor is livestock monitoring required before making planning decisions that are needed to protect important resource values, like endangered grizzly bears (pp. 91-93), that should take precedence over livestock grazing. In such cases, livestock reductions or modifications should be implemented as soon as possible. To delay needed modifications in existing management under the circumstances contravenes the Bureau's obligation under FLPMA to "take any action necessary to prevent unnecessary or undue degradation" of the public lands.

Finally, the proposed action will produce a relatively small number of additional AUMs at a very high cost. The EIS fails to justify this large expenditure, which in large part consists of a subsidy to the livestock industry. Given recent budget reductions, it is very questionable whether many of the "range improvements" that inure primarily to the ranchers should be implemented.

Thank you for considering these comments.

Sincerely yours,

David B. Edelson
Johanna H. Wald /DBE

34a

Plum Creek Timber Company, Inc.
Rocky Mountain District

August 16, 1983

Mr. Dan Lechefsky
Project Manager
Butte District Office
Bureau of Land Management
P. O. Box 3388
Butte, MT 59702

RE: Headwaters Resource Management Plan Draft EIS

Dear Mr. Lechefsky:

In reference to the above document, we support the BLM's alternative to use land exchange as the primary method of land adjustment. We are, however, disappointed that the Plan did not identify the lands Burlington Northern has offered to dispose of in the Headwaters area. (The list was presented to you in October of 1982.) By identifying these parcels, the public has an opportunity to comment on the proposal.

We also request that the Plan emphasize the benefits of consolidating land ownership by showing how public and private costs can be reduced if lands are blocked up.

Thank you for considering our comments.

Sincerely,

Judy A. Barker
District Supervisor
Land Planning

JAB/mc

cc: W. J. Parson
D. D. Whitesitt

RECEIVED

200 South Avenue W · Missoula, Montana 59801 · 406-721-6550

35a

Rocky Mountain Oil & Gas Association, Inc.

345 PETROLEUM BUILDING • DENVER, COLORADO 80202
303/534-8261

June 22, 1983

Mr. Dan Lechefsky, Project Manager
Butte District Office
Bureau of Land Management
P.O. Box 3388
Butte, MT 59702

Dear Mr. Lechefsky:

I am writing on behalf of the Rocky Mountain Oil and Gas Association (RMOGA), a trade association of approximately 800 companies, large and small, involved in all aspects of oil and gas exploration, production, and transportation activities throughout the Rocky Mountain West. We appreciate this opportunity to comment on the Resource Management Plan (RMP)/Environmental Impact Statement (EIS) for the Headwaters Resource Area. Following are issues we would like to have taken into consideration during development of the Plan and EIS.

It is encouraging that both oil and gas leasing and development, and mineral exploration and development are listed as major planning issues in the document, indicating that the BLM has considered these values in the planning process. However, it appears that some plan recommendations would effectively preclude oil and gas development in areas of the Rocky Mountain Front that have very high potential.

While none of the five areas under consideration would be recommended for wilderness designation, we are concerned that four areas along the Rocky Mountain Front -- Blind Horse Creek, Ear Mountain, Chute Mountain, Deep Creek/Battle Creek -- are recommended for Outstanding Natural Area designation. Statements in the plan such as the following illustrate the reason for this concern: "Special designation will permit essentially the same level of protection for scenic, recreational, and other values that wilderness designation would provide." Such stringent protection would obviously constrain energy development. The areas recommended for ONA status are believed to have very high oil and gas potential, and should not be effectively closed to development.

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Mr. Dan Lechefsky, Project Manager
Butte District Office
Bureau of Land Management
June 22, 1983
Page Two

Regulation of oil and gas operations would apparently increase under the Preferred Alternative. While all the alternatives considered assume a continuation of oil and gas leasing as recommended in the Butte District Oil and Gas Environmental Assessment, the level of leasing and stipulations would likely differ due to more protective management practices. Under the Preferred Alternative, Federal minerals located along the Rocky Mountain Front would be administered with more specific lease stipulation guidance. In fact, the Preferred Alternative represents a change from current management direction because additional no surface occupancy restrictions within the boundaries of proposed Outstanding Natural Areas would be established. The recommended course of action would result in a decrease of 9,960 acres in land available for occupancy leasing. This decrease in availability is proposed for a region -- the Rocky Mountain Front -- which has high oil and gas potential. While the BLM argues that ONA designation is intended to preserve future management options while providing full protection for surface values, this restricted access makes exploration and development potentially more costly and time-consuming.

The BLM asserts that the Preferred Alternative would result in no change from current management direction with respect to mineral exploration and development, as all public land would remain available for entry, unless previously withdrawn. In addition, some existing withdrawals may be revoked in the future as the current withdrawal review continues. However, site-specific stipulations applied to activities within specially designated areas may make exploration impractical if not impossible.

The Preferred Alternative would make all Federal coal within the Great Falls Coal Field available for further consideration for coal leasing. However, only underground coal mining methods would be permitted, and 1,755 acres would be recommended for no surface occupancy to protect public roads, rights-of-way, and wildlife habitat.

Thank you for consideration of our views.

Sincerely,

Alice I. Frell
Lands Director

AIF/dar

36a

Shell Oil Company

P.O. Box 831
Houston, Texas 77001

July 7, 1983

Bureau of Land Management
Butte District Office
ATTN Dan Lechefsky, Project Manager
P. O. Box 3388
Butte, MT 59702

Gentlemen:

PUBLIC COMMENT
RESOURCE MANAGEMENT PLAN (RMP)
HEADWATERS RESOURCE AREA
BUTTE DISTRICT, MONTANA

Reference is made to your recent request for public comment on the subject matter. As we understand it, the RMP will be an all encompassing plan which directs a course of management for use and protection for all resource values which cover the entire Resource Area.

In any alternative selected in this plan, two critical points should be addressed: (1) In what way will the agency gather information in order to adequately evaluate the energy and mineral resource potential within the planning areas, and (2) in areas where there is moderate to high potential for deposits of energy or minerals, how is the agency going to develop land use allocations which will be compatible with possible exploration for the development of these resources.

Areas which contain these resource values should be allocated to lands uses which would minimize the restrictions placed on exploration and development of these resources. Shell Oil has the following areas of specific concern, although we do not presently have any active operations therein:

Blind Horse Creek	MT-075-012
Chute Mountain	MT-075-105
Deep Creek/Battle Creek	MT-075-106
Black Sage	MR-075-115

All of the above listed areas have considerable potential for oil and gas being located within the Montana Folded Belt. We would support any alternative which would not preclude these areas from hydrocarbon exploration and production.

Shell Oil appreciates this opportunity to express our concerns and views in this matter. Also, we wish to be updated on your progress in this area.

36b

Bureau of Land Management 2

Please place Shell Oil Company, at the above address, on your mailing list for all communications and notices pertinent to this subject.

Yours very truly,

Larry G. Svab
Land Department
Rocky Mountain Division

LGS:lbh

37a

June 14, 1983

Mr. Dan Lechefsky
Project Manager
District Office, Butte
Bureau of Land Management
P.O. Box 3388
Butte, Montana 59702

SUBJECT: Draft EIS of the Headwaters Resource Area

Dear Mr. Lechefsky,

As you may remember, I have corresponded regarding this subject with you before, also as the president of the Sunny Vista Homeowners Association. Having reviewed the Draft EIS I feel compelled to repeat and expand upon some of our views that were apparently not, in my opinion, considered important enough as factors for your EIS.

The primary, overwhelming concern of our members is the mineral leeching processes utilized by some individuals/corporations in the Scratchgravels. All of our homes are supplied with water deriving from the underground streams/water table in the Hills, and many of our homes sit directly beneath mineral leeching operations which occur on our hillsides. It is a very sobering and frightening situation to be a homeowner, who bought or built a home near the hills prior to the leech pads installation, to look up and see a lleching operation immediately above your home and immediately above your only water supply for you and your family.

As you have been advised, the leeching operations utilize a process involving hydrous cyanide, a poison. While the users state that everything is under control with their operations, the operations are contained only by a "pad", what I can only describe (for lack of better words) as a rubberized blanket between the cyanide and the ground surface. But despite the nature or extent of the protections provided by these operations, they are still operating directly above our only source of water -- and a primary source of water for the entire Helena area, since these springs invariably feed into Three Mile and Ten Mile Creeks. Contamination for whatever reason -- rupture due to the pad's age or a defect, rupture due to earthquake, human error, etc. -- will have the same results.

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Aside from the obvious financial result if the Sunny Vista groundwater source is contaminated, which would reduce the area from a viable residential area to a "ghost town" area due to lack of potable water, consider the other results. As studies have concluded, the Scratchgravel Hills area is honeycombed with ground/rock fractures, and contaminant leakage into the ground will certainly spread. The Scratchgravels alone will not be affected, the leakage will extend into Helena and the remainder of the Valley. How long the effect would exist is unknown. But consider the extent of the problem were this area to be struck again by an earthquake of the magnitude of that which struck Helena in the 30s. What would occur to the populace if, on top of the destruction of the quake, they also had to contend with groundwater contamination from these leeching operations? The prospect is sufficent grounds for concern, even if it is only a possibility.

What should then be done? An obvious alternative would be removal of mining operations from the Scratchgravels, but I have no illusions that you have not been bombarded with the viewpoints of the mining concerns on that issue (as looking at the list of contributing businesses and organizations on pages 160-161 in the EIS will show). I therefore see little prospect of success in urging such a Quixotic notion as that embodied in that portion of your Alternative C. However, we do believe that you should implement a revision of your Alternative A to provide for off-site processing of extracted mineral ores, and thereby placing the Scratchgravels off-limits to leeching operations and the like in order to protect and preserve the water resources in the area. Merely require the mining concerns to process their ores elsewhere rather than directly over the water supply. Certainly it will cost a little more, since they will be transporting the ores rather than merely the actual minerals removed from the ores, but the alternative is a form of gambling that has not yet been approved by either the people of Montana nor the Legislature. And the stakes at present are the lives of our families vs. higher profits for the mining concerns.

We ask that you consider our families as the more urgent.

Our previous letters to you adequately express our views on the remaining issues addressed by the Draft EIS. We wish you luck in your decision, and only ask that you make such a decision as will provide a level of safety to us where we will not feel that we have been sacrificed to a few gold-seekers. Thank you for your attention and consideration.

STEPHEN A. HARRISON
Sunny Vista Homeowners Association

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SUPERIOR OIL

July 11, 1983

Dan Lechefsky
Project Manager
Butte District Office, BLM
P.O. Box 3388
Butte, Montana 59702

Mr. Lechefsky:

Following up to our phone conversation of late June, I'm writing to comment on a few of the items we discussed concerning the DRAFT ENVIRONMENTAL IMPACT STATEMENT.

1. Seasonal Exploration Restrictions: Table 2-2 indicates that an area that is both a Grizzly Bear spring and summer range and a Elk and Mule deer winter range would have seasonal restrictions during the period 12/1-9/1. This would allow unrestricted work only during the period 9/1-12/1. This would, in may cases, be a stipulation that would make work on a lease impossible. If the seasonal restrictions were such that certain types of activites were allowed during the period 12/1-9/1, then the impact of this potential problem would be lessened.

2. Seasonal Production Restrictions: Producing wells generally require daily attention in almost all cases and need periodic major work to keep them producing safely and efficiently. The seasonal restrictions placed on a lease must allow for work of this type. Acceptable restrictions might be to limit visits to daytime hours only and limit the number of vehicles and/or people allowed at a producing well at any one time. If occupancy of this nature is not allowed, then leases would probably not be attractive for exploration or development.

3. Oil and Gas Leasing and Development: Overall, the guidelines stated in Alternative A appear to be much too restrictive to allow for development of the oil and gas which may exist in certain areas. I think, however, that it, and Alternative D, could be blended into one that would allow development. The restrictive nature of disallowing surface occupancy (and leases) over such wide area is the problem. A compromise might involve restricting well locations to one per section, restricting distances between surface locations to a fixed distance (e.g. 2000'), and formalizing road location guidelines.

The Superior Oil Company — Denver Production District — 1888 Sherman St., Suite 600, Denver, CO 80203, (303) 836-2600

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PAGE 2

4. Existing leases: I think the Impact Statement should make a strong statement that existing leases within the area described are not subject to the surface occupancy and lease stipulation, nor any other statements described in the Draft Statement.

We at Superior Oil are working hard to establish a good working relationship with all of the regulatory agencies involved with our Blackleaf Canyon Unit. We are very willing to conduct the development work within the unit as best we can to minimize the impact on the area wildlife. The Environmental Impact Statement and the Grizzly Bear Study, which we are helping to sponsor, is providing us with valuable insight into how we can operate in such a sensitive area. If I can be of additional assistance, please feel free to call me at (303) 863-2620.

Sincerely yours,

William E Pritchard

WILLIAM E. PRITCHARD
Engineering Manager

WEP/jme

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1983 JUL 19 AM 9 08
RECEIVED
MONTANA STATE OFFICE
BILLINGS

The BOB MARSHALL Alliance

Box 4266 Missoula, Montana 59806

BILLINGS RA
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DSDI BLM
AV___ PAFOF___ WIN___
RES. T (OFS)___ REC___
RES. T ___ LANDS___
ENV. ED___ WLDLF___
AIM___ FILE___ ACTION___
PLAN ___ ___

July 15, 1983

Mr. Mike Penfold, State Director
Bureau of Land Management
Box 30157
Billings, MT 59107

Dear Mr. Penfold,

Please consider the following comments of the Bob Marshall Alliance concerning the draft Headwaters Resource Area Management Plan. The Bob Marshall Alliance is a coalition of 32 organizations, representing sportsmen, outfitters, backcountry horse users and conservationists.

Our interest with the Headwaters plan lies exclusively with the wilderness recommendations for the BLM study areas that are contiguous to the Bob Marshall Wilderness. As you may know, the Bob Marshall Alliance has submitted a proposal for additions to the Bob Marshall Wilderness in response to the Congressional attempt to resolve the RARE II issue, and several of these areas lie along the Rocky Mountain Front. Since the RARE II issue involves National Forest lands, no BLM lands are part of the current proposal, but the BLM areas have been discussed by our organization on several occasions and we support their designation as wilderness.

The Bob Marshall Alliance's criteria for what areas should be part of the larger Bob Marshall Wilderness include contiguity, relationship to the ecosystem, and traditional use of the area by recreationists. The three BLM wilderness study areas along the Rocky Mountain Front--Blind Horse Creek, Chute Mountain and Deep Creek-Battle Creek--are all adjacent to National Forest lands the Bob Marshall Alliance has proposed for wilderness, thus they are all contiguous. Further, in terms of ecosystem relationship, these BLM wilderness study areas are particularly critical, as they contain transitional habitat between the mountains and prairie, and are especially critical for the wildlife populations that use the Bob Marshall. Finally, these three BLM areas have traditionally been used by recreationists for hiking, hunting, etc.

We are pleased that the BLM recognizes the special values of these three areas, as signified by the proposed Outstanding Natural Area designation. But at the same time we recognize this is only administrative protection, and it lacks the permanence and force of law a Congressional designation would have. We're particularly concerned about the potential impacts of oil and gas exploration and development, and the ONA designation gives us little security from that threat. Even with these areas as wilderness, and portions of the Front recommended for no leasing or no surface occupancy, the majority of lands along this portion of the Overthrust Belt, which is still unproven as to oil and gas reserves, will still be available for oil and gas development.

We would urge the BLM to take a more conservative route and protect the important resources which are already known to be present. The Bob Marshall Alliance recommends the final BLM recommendation for these three wilderness study areas be changed

Save the Bob.

39b

to a positive recommendation. The Headwaters Resource Area plan presents all the reasons for why these areas should be wilderness; I would urge the BLM to re-examine the issue.

Sincerely,

Jim Curtis

James F. Curtis, President

cc: Sen. John Melcher
Sen. Max Baucus
Rep. Pat Williams
Rep. Ron Marlenee

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July 15, 1983

Michael Penfold, State Director
Bureau of Land Management
Post Office Box 30157
Billings MT 59107

Kyle Fox, Area Manager
Headwaters Resource Area
Bureau of Land Management
Post Office Box 308
Butte MT 59701

Dear Messrs. Penfold and Fox:

Thank you for the opportunity to present views on behalf of Wildlands and Resources Association concerning the Headwaters Resource Area Resource Management Plan. WRA represents a group of conservation-minded people from Great Falls and the surrounding area. The major areas we wish to address are: (1) Management areas along the Rocky Mountain Front, (2) estimated potential timber yield, (3) motorcycle and other off road vehicle use, (4) oil and gas leasing and drilling, (5) Headwaters Resource Area land disposal plan's draft environmental impact statement. We recognize that in some instances these areas are interrelated.

The Rocky Mountain Front is a unique ecosystem in many regards. It is an ecological, economical and aesthetically important region. Since wildlife do not understand manmade boundries, it is important for man to recognize that wildlife along the front migrate from winter to summer grounds without regard for boundries between wilderness areas, Forest Service lands, BLM and public lands. The Rocky Mountain Front is a rich habitat for Grizzly Bear, Big Horn Sheep, Elk and many other species of animals.

WRA has opposed and continues to oppose incompatible uses such as commercial timber harvest and oil and gas activity. Not only is there irreparable damage done by woodmaking on unstable soils, but also there is endangerment to the natural inhabitants of the area.

Basically WRA questions how the areas designated along the RMF as Outstanding Natural Areas would be managed. Will these areas be managed similar to wilderness? Would oil and gas leasing be permitted? We are opposed to oil and gas leasing in these areas and other areas on the front when it would interfere with the wildlife habitat, recreational and economical values of the area.

We question why oil and gas has been given the "right of way" over other possible management plans and we question why oil and gas exploration has been accepted by the agency as the highest use of these lands. The potential yield of oil and gas along the front would be very small compared to the "natural need". Why destroy these important lands forever for a few years use of oil and gas? We support alternative energy uses, such as conservation and exploration into possible new renewable energy sources instead of perpetrating the use of this non-renewable resource.

The RMF area also has a current and long standing stable economy based on recreational and tourist use of these lands. If oil and gas exploration and

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drilling were more freely allowed in these areas the characteristics of the land that draws this type of business would be lost forever. After the oil and gas is gone there would be nothing left for the wildlife or the residents of these areas.

In regard to the Preferred Alternative estimated potential timber harvest, it is noted that the potential timber yield for the area will remain at 26.45 million board feet per decade. This is 26 times the actual current harvest rate of 1 million board feet per decade. We question this spread of potential yield and current harvest and believe it would be devastating to this resource area if the potential timber yield were met within a single decade.

Some of the forested areas south of Rogers Pass (Head of the South Fork of the Deerborn) is occupied by Grizzly Bear habitat. The increased timber harvest potential expressed in the Plan contemplates a much increased potential harvest over the historical harvest. Does this harvest goal take into account possible impact on Grizzly Bear habitat? Would increased harvest endanger the Grizzly which is protected under the Rare and Endangered Species Act?

WRA is opposed to increased designation of areas for motorcycle and other off road vehicle use. Is allowing motorcycle events good utilization of our energy resources? We do not think so. We do not believe this practice demonstrates good land husbandry, we believe there are already enough areas open for motorcycle use and other off road vehicle use. We urge you to recommend no new areas be opened to motorcycle use. We believe that current management plans for motorcycle use and off road vehicle use need to be strengthened and more specific within the management plan.

Wildlands and Resources Association is opposed to the sale of public lands. We ask that BLM recognize its authority to adopt alternatives to sale of public lands under its jurisdiction. These alternatives include reassignment of jurisdiction to appropriate state and federal land management agencies such as the Montana Department of Fish, Wildlife and Parks and the U.S. Forest Service. We are opposed to any release of BLM lands to the Department of State Lands because of that agency's history of poor management of the natural resources on lands under its jurisdiction. We also ask that a substantial portion of the lands listed for possible disposal be retained by BLM and better managed by your agency. We are not opposed to exchange of BLM lands with low public values for lands with higher public values. Wildlands and Resources Association is strongly opposed to release, trade, sale or exchange of any lands with moderate to high public values for the purpose of promoting subdivision of these lands.

We thank you for this opportunity to comment on the Headwaters Resource Area, DEIS and compliment the staff on the time, energy and work they have put into this plan.

Sincerely,

Patty Busko

Patty Busko, President
Wildlands and Resources Association
5414 Fourth Avenue South
Great Falls MT 59405

42a

Milton L. Allen
89 Lishaskill Road
Albany, New York

12205

May 21, 1983

United States Department of the Interior
Bureau of Land Management
District Office, Box 3388
Butte, Montana 59702

Following are my comments germane to planning for Headwaters Resource Area, Butte District lands and asset management.

As present and inpending litigation demonstrates, United States policy requires that public lands be held in perpetuity and managed exclusively under the stewardship of classified Civil Service employees.

All public lands must be retained; no such lands may therefore be considered for sale or subject to any other method of disposal.

As I have previously commented in rejecting proposed "disposal categories" my rationale is based on federal law expressing Congressional intent.

Sincerely,

Milton L. Allen

(Typed for reproduction in the final RMP/EIS)

45a

August 4, 1983
Virgelle Route
Loma, Montana 59460

Dan Lechefsky, Project Manager
Butte District Office, BLM
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

I have studied the RMP/EIS for Headwaters Resource Area and offer my comments for the record. I am a farmer-rancher from farther down the watercourse at Virgelle.

I believe your Rocky Mountain Front wilderness study units should receive a wilderness recommendation and should continue to be managed as wilderness. We will see what FS areas are designated, but regardless, you cannot justify oil and gas as the highest use of this land. On public lands along the Front, in Outstanding Natural Areas and ACECs their should be 'no surface occupancy' for oil and gas.

Their should be no timber harvest in occupied grizzly habitat. Management unit #5 north of Rogers Pass on the upper Dearborn is occupied grizzly habitat. Some forest areas south of Rogers Pass is occupied grizzly habitat and forest management units 25 and 26 near Marysville should not get high priority for timber harvest. And they definitely should not be made available for off-road motorcycle use.

I oppose the public running around the hills in off-road vehicles. In the issues discussion you identify an ORV problem, then go on to promote it. You should not feel like you need to give "special attention...to identify motorcycle use areas..". Why do you feel this way? ORV use does not contribute anything to good land stewardship and for BLM to promote it is wrong, wrong, wrong.

Management units #9 should not be available for motorcycle use. This includes Devils Kitchen which should also be spared from utility corridors.

Sounds like the land disposal program is dead for now. I oppose it mostly because of proposed criteria for disposal. I can support some exchanges. The EIS really didn't address inter-agency land transfer. Would you please keep me informed when sales or exchanges of public land are planned in the resource area?

Thank you.

Sincerely yours,

Jerry Bauer

Jerry Bauer

46a

BRUCE BOWLER
LAWYER
244 SONNA BUILDING
BOISE, IDAHO 83702
PHONE 343-8074

May 24, 1983

Jack A. McIntosh
District Manager
Bureau of Land Management
Box 3388
Butte, Montana 59702

Re: Resource Management Plan
Headwaters Area

Dear Manager McIntosh:

I appreciate your letter of May 16, 1983, and copy of your map for land ownership adjustments together with your draft land use plan.

First, I must say that yours is the most intelligent methodology I have seen in connection with asset management administration. You really appear to be following the basic law for sale of isolated tracts as enacted by the Congress in the late 60's while I was on the BLM National Advisory Board. The philosophy of this law is as good today as it was then. If all agencies would follow your intelligent example, the extreme rhetoric attending as set management should be avoidable. Of course, massive public land sales are not authorized under the isolated tract laws. The stupid mentality that goes with the concept of paying national debt with public land sales is main source of the problems. Your office is commended for not indulging this monkey business.

Many thanks.

Sincerely yours,

Bruce Bowler

Bruce Bowler

BB/kmk

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4366 Head Dr.
Helena, Montana 59601
June 14, 1983

Dan Lechefsky
Project Manager
Butte District Office
BLM
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

I am writing to inform you that after carefully reading the Draft Resource Management Plan/ Environmental Impact Statement for the Headwaters Resource Area, Butte District, Montana I strongly support Alternative "C". This alternative provides the most satisfactory overall environmental protection while still allowing adequate resource production.

I am a resident of the scratchgravel hills area in Helena. Although I prefer alternative "C" I would recommend several changes to the other options if they are adopted.

a. No organized motorcycle events should be allowed in the Scratchgravel Hills area. The land, vegetation and wildlife in the area are too fragile for a motorcycle event and the increased year round use of the area by motorcyclists that would result. Motorcycle races are also incompatable with many of the other recreational uses of the area such as horseback riding and are incompatable with the general rural residential atmosphere of the surrounding areas. Alternatives "B" and "D" should be amended to exclude organized events.

b. Mining and removal of sand, gravel or other materials should be restricted in the scratch gravel hills area because of the fragile environment, the incompatability of mining with surrounding residential use and the possibility of ground water contamination. At a minimum, a buffer zone of land should be withdrawn from mining activity as proposed in alternative "C" (Map on page 44 of draft). Also, onsite processing of the ore and in particular, the use of Cyanide should not be allowed. Page 57 of the draft states that "Groundwater originating in the Scratchgravel Hills is used for domestic purposes in nearby rural subdivisions. There is some potential for groundwater contamination from mining activities in the recharge area. Of particular concern is the use of cyanide for onsite processing of ore." Due to the large amount of fractured rock and the large number of faults running through the Scratchgravel Hills area, the chance of groundwater contamination is very high if an accident or mishandling of the

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(2)

cyanide was to occur. Therefore, I would recommend that Alternatives "A", "B" and "D" be amended to withdraw the Scratchgravel Hills from mining or at least create a buffer zone between the residential areas and the mining. Also, that no onsite processing of the ores be allowed anywhere in the scratchgravel hills.

c. Motorized vehicle use in the Scratchgravel Hills area should be restricted to designated existing roads in the area. The enviroment in the area is too fragile for off-road vehicle use. There are numerous examples in the hills where off-road vehicles have traversed an area only once and several years later the tracks are still evident. These tracts tend to channel rainwater which results in even greater erosion and distruction of the natural vegetation. Therefore plans "B" and "D" should be amended to restrict motorized vehicle use in the Scratchgravel Hills Area.

Thank you for your consideration of these comments.

Sincerely

Barbara A. Charlton

Barbara A. Charlton

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Dan Lechefsky
Project Manager
Butte District Office

Subject: Headwaters Resource Area Environmental Impact Statement

Dear Sir

The preferred alternative does not fairly consider the wilderness values out of Wilderness Study Areas. On page 52 of the EIS, the rational for not recommending wilderness protection is that the areas small size poses management problems and the area may be underlain by gas and oil The EIS also states that oil and gas lessing will be permitted on 97% of the Federal lands in the Resource Area.

The total area being considered for wilderness protection is only 17,197 acres, only 6% of the study area. We recommend that Alt. C be the preferred alternative so that all interests can be more fairly satisfied. The possibility of oil deposits is weighed to heavily against known wilderness values. Size is a poor criteria for assessing wilderness recommendations as very little maintenance would be required anyway. The small size is irrelevant when the area is adjacent to an existing wilderness.

Sincerely yours,

David W. Cough & Linnie P. Cough
1263 Bighorn Rd
Helena, Montana 59601

(Typed for reproduction in the final RMP/EIS)

55a

2235 Skyway
Butte, MT 59701

June 15, 1983

Jack A. McIntosh
BLM District Manager
Butte, MT

Dear Mr. McIntosh;

In reference to the Headwaters Resourse Area plan, as a general statement, I am totally opposed to any further sale of Federal lands. Even the smaller plots might provide refuge for birds and various other wildlife. These values would quite soon be lost to the public if they fall into private hands.

In looking over the Headwaters map you enclosed I can see that some consolidation might be in order with National Forest lands. Also I would probably not be opposed to some exchange of lands generally lacking public values for other better suited lands.

Again, I am absolutely opposed to any outright sales of said public lands.

Sincerely,

Mortimer L. Hart

Mortimer L. Hart

RECEIVED

56a

Dan Heinz
919 W. Silver
Butte, Mt.
July 5, 1983

Dan Leschefsky
Project Manager
Butte District Office, BLM
Box 3388
Butte, Mt. 59702

Following is my opinion on how wording in "Management guidance common to all alternatives" should be handled:

Strong direction is needed in this type of plan to assure continuity between transfering line managers.

We strongly support strong clear management direction without qualifiers.

The direction under water on page 19 is a good example. The direction is good up to the qualifier which says "to the extent practuble". This essentially negates the whole direction and leaves riparian utility location to the discretion of the line officer. If a resource rates special comment and direction in a resource management plan, then it rates strong direction.

An EIS sanctified RMP is not etched in stone. If an unusual or unpredictable circumstance arises that needs exception, then an EA or abriviated EIS can be prepared to modify the parent RMP. This is a hurdle that assures extra protection for a particular1 resource. It also assures adequate public involvement.

Sincerely,

Dan C. Heinz

(Typed for reproduction in the final RMP/EIS)

62a

67 Garfield Street
Cambridge, Massachusetts 02138

Dan Lechefsky, Project Manager
Butte District Office
BLM P.O.Box 3388
Butte, Montana 59702

Gentlemen:

I select Alternative C - Emphasizes Environmental Protection

Oil and Gas Leasing: In this alternative, approximately 22,000 acres less are available to leasing and development along the Rocky Mountain Front as compared to Alternative A (Preferred).

In this alternative, approximately24,000 more of federam mineral estate within specific portions of the Rocky Mountain Front would not be available for leasing because of no surface occupancy stipulations that would prohibit leasing and development. This ruling is desirable because it gives a larger area of protection to wildlife habitat.

Livestock - This alternative in long term livestock use would decrease 10% below current levels as compared to Alternative A -- 6% above current levels; This is only approximately 5,000 more AUMs but groundwater is taken from riparian areas which has an adverse effect on wildlife habitat.

Wilderness Study Recommendations - In this alternative, all five of the areas currently under wilderness study would be recommended to Congress for wilderness designation. In the long term, 17,197 acres in the resource area would be maintained under wilderness values."None of the five areas would be recommended to Congress for wilderness designation; three areas would be recommended as Outstanding Natural Areas and managed as wilderness. " Alt. A. It's my view, among the most important BLM Wilderness Study Areas in the Headwaters Resource Area are the units scattered along the magnificent Rocky Mountain Front especially those adjacent to the Bob Marshall Wilderness.

Forest - Alternatives A and C are more or less the same insofar as forest resources would be managed essentially as they are at present. Timber interests are given a good priority and resource values, watersheds and wildlife habitat are not overlooked.

Land Ownership Adjustment - Alternative A and Alternative C are the same. I have no comments.

62b

PAGE 2

Mineral Exploration & Development - Alternative A and Alternative C are more or less the same with one exception.
In Alternative C approximately 2,960 acres of public land in the Scratchgravel Hills would be withdrawn from mineral entry in an effort to limit future impacts of mining on groundwater resources.
The 11,587 acres of public land withdrawn from mineral entry seems very small to me when compared to Alternative A (613,486 acres) and Alternative C (610,526 acres) which would be available for mineral entry and development; there must be some units in these areas which would qualify for wilderness designation or Outstanding Natural Areas. (See enclosed clipping which was published in the Boston Globe--a local paper--taken from the Washington Post. I think the views expressed are very pertinent on the issue of oil and gas exploration leasing.

Motorcycle Events - In Alternative C approximately 25,000 acres more of public land (102,513 acres) including five other areas would be closed to motorcycle events as compared to Alternative A (77,203 acres) including Scratchgravel and Limestone Hills. Motorcycles over a period of time would cause soil erosion and destroy any wilderness values. I like BLM's plan that applications for these events will be evaluated on a case-by-case basis on public lands for further consideration.

Motorcycle Vehicle Access - My preference for Alternative C in this Management Plan is that approximately 6,000 acres more public land (18,033 acres) as compared to Alternative A (12,058 acres) would be closed yearlong to motorized vehicle access, otherwise the alternatives are more or less the same--minor differences in acreage size.

Utility and Transportation Corridor - My preference for Alternative C is that it identifies 17,197 acres of public land as exclusive areas. I note in both Alternative A and Alternative C, avoidance areas would be established in Scratchgravel and Limestone Hills and other key areas having wilderness quality. In the Preferred Alternative, Management Direction is certainly not overlooking utility interests wherein approximately 238,838 acres or 77% of the public land would be available for development of utility and transportation corridors.

Coal - Alternative C would make none of the federal coal in the Great Falls Coal Field available for further consideration of coal leasing whereas in Alternative A all federal coal in the GFCF would be available for further consideration for coal leasing.
In view of the large scale leasing and planned coal sales in states in the West and Southwest, I feel coal will end up being a 'glut in the market'--rather short-sighted planning, under existing economic conditions.

62c

PAGE 3

Alternatives Considered in Detail - Alt. A

Special Designations - The Blind Horse Creek, Ear Mountain, Chute Mountain and Deep Creek/Battle Creek areas would be designated as Outstanding Natural Areas....The Sleeping Giant Area would be designated as an Area of Critical Environmental Concern.

Selection of Preferred Alternative - Alt. A

Rationale (In Part) - The use of Outstanding Natural Area designation is preferred in this case because of the management flexibility such designations would allow if significant oil and gas reserves are proven to exist beneath these areas in the future. During the interim, special designation will permit essentially the same level of protection for scenic, recreational and other values that wilderness designation would provide.

In the Summary, Alternative C emphasizes environmental protection. This includes the five areas currently under wildgrness study and which would be recommended to Congress for wilderness designation. As a result, wilderness values would be maintained over the long term on 17,197 acres in the resource area. This designation would eliminate any problems in management and would prohibit oil and gas explorations in the future.

Why save wilderness? It provides recreational opportunities, wildlife habitat. Wilderness protects watersheds and prevents floods. It helps maintain air quality and water quality. Lastly, future generations will have a stake in these lands if left in their natural settings - a wonderful heritage.

Mildred Leonard

62d

Wildlife areas to be leased

Washington Post

WASHINGTON — The Interior Department is preparing to open 1 million acres in national wildlife refuges to oil and gas exploration, reversing a 25-year-old federal policy and probably starting another confrontation with conservation groups and Interior Secretary James G. Watt's congressional foes.

The new policy is reflected in rules drawn up by the Bureau of Land Management that are designed to streamline leasing procedures under Watt's five-year program for opening more federal lands to oil and gas production.

The regulations have not been released, but regional directors of the Interior's Fish and Wildlife Service were told last month that the rules will allow leasing on "acquired-land" refuges in the lower 48 states as long as the proposed development "is compatible with the purposes for which the refuge was established."

63a

Tom Literski
4366 Road Dr.
Helena, Montana 59601

Dan Lechefsky
Project Manager
Butte District Office
BLM
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

I am writing to inform you that after carefully reading the Draft Resource Management Plan/ Enviromental Impact Statement for the Headwaters Resource Area, Butte District, Montana I strongly support Alternative "C". This alternative provides the most satisfactory overall enviromental protection while still allowing adequate resource production.

I am a resident of the scratchgravel hills area in Helena. Although I prefer alternative "C" I would recommend several changes to the other options if they are adopted.

a. No organized motorcycle events should be allowed in the Scratchgravel Hills area. The land, vegetation and wildlife in the area are too fragile for a motorcycle event and the increased year round use of the area by motorcyclists that would result. Motorcycle races are also incompatable with many of the other recreational uses of the area such as horse-back riding and are incompatable with the general rural residential atmosphere of the surrounding areas. Alternatives "B" and "D" should be amended to exclude organized events.

b. Mining and removal of sand, gravel or other materials should be restricted in the scratch gravel hills area because of the fragile enviroment, the incompatability of mining with surrounding residential use and the possibility of ground water contamination. At a minimum, a buffer zone of land should be withdrawn from mining activity as proposed in alternative "C" (Map on page 44 of draft). Also, onsite processing of the ore and in particular, the use of Cyanide should not be allowed. Page 57 of the draft states that "Groundwater originating in the Scratchgravel Hills is used for domestic purposes in nearby rural subdivisions. There is some potential for groundwater contamination from mining activities in the recharge area. Of particular concern is the use of cyanide for onsite processing of ore." Due to the large amount of fractured rock and the large number of faults running through the Scratchgravel Hills area, the chance of groundwater contamination is very high if an accident or mishandling of the

63b

(2)

cyanide was to occur. Therefore, I would recommend that Alternatives "A", "B" and "D" be amended to withdraw the Scratchgravel Hills from mining or at least create a buffer zone between the residential areas and the mining. Also, that no onsite processing of the ores be allowed anywhere in the scratchgravel hills.

c. Motorized vehicle use in the Scratchgravel Hills area should be restricted to designated existing roads in the area. The enviroment in the area is too fragile for off-road vehicle use. There are numerous examples in the hills where off-road vehicles have traversed an area only once and several years later the tracks are still evident. These tracts tend to channel rainwater which results in even greater erosion and distruction of the natural vegetation. Therefore plans "B" and "D" should be amended to restrict motorized vehicle use in the Scratchgravel Hills Area.

Thank you for your consideration of these comments.

Sincerely

Tom Literski

72a

Susan L. Marsh
P.O. Box 973
Bozeman, Montana 59771
31 July 1983

Lyle Fox, District Manager
Bureau of Land Management
Butte, MT

Dear Mr. Fox:

I am writing to comment on the draft management plan for the Headwaters Resource Area. First, let me commend the BLM for its apparent recognition of the importance of land in this area for wildlife habitat. I hope that maintenance and enhancement of wildlife habitat remains a high priority in this Resource Area.

Second, I wish to express my opposition to any sale of public land. I support a program of trading parcels that have little value to the public or to wildlife, which are difficult to manage and could be put to agricultural uses. Such parcels should be traded for more valuable wildlife habitat. Although the publicized "asset management" program has for the moment been abandoned, I urge the BLM to carefully consider each parcel that has been identified for disposal in its ongoing program of sales and exchanges, and be certain that all exchanges benefit natural resource management, wildlife habitat, and the public interest.

I do not believe that inability to gain access to an isolated parcel of land is cause for disposal. That 40-acre parcel may be a significant refuge for upland birds and mammals in an area that has been cultivated or otherwise made unavailable to wildlife. If it can be shown beyond reasonable doubt that such a parcel is not of value to wildlife then it should be traded for one that is, not sold.

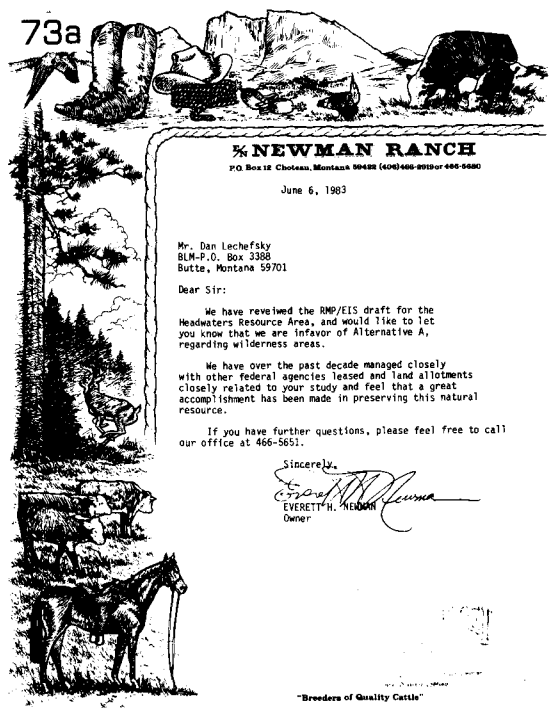
I appreciate the chance to comment on the plan; as I tried to express at the beginning of this letter, I think you have done a good job in preparing this draft plan, especially in relation to wildlife. My major concern is sales of public lands.

Sincerely,

Susan L. Marsh

(Typed for reproduction in the final RMP/EIS)

73a



NEWMAN RANCH
P.O. Box 12 Choteau, Montana 59422 (406)466-2019 or 466-5680

June 6, 1983

Mr. Dan Lechefsky
BLM-P.O. Box 3388
Butte, Montana 59701

Dear Sir:

We have reveiwed the RMP/EIS draft for the Headwaters Resource Area, and would like to let you know that we are infavor of Alternative A, regarding wilderness areas.

We have over the past decade managed closely with other federal agencies leased and land allotments closely related to your study and feel that a great accomplishment has been made in preserving this natural resource.

If you have further questions, please feel free to call our office at 466-5651.

Sincerely,

EVERETT H. NEWMAN
Owner

"Breeders of Quality Cattle"

74a

642 Monroe Ave.
Helena, Mont. 59601
August 4, 1983

Bureau of Land Management
Headwaters Resource Area
Box 3388
Butte, Montana 59702

Re: Headwater Resource Management Plan.

I have spent considerable time reading and trying to understand this plan, and I have also made phone calls to Butte to clarify some details. As per your request, here are some of my comments on your draft copy of RMP:

(1) Appendix E: Priority has assigned numbers 1 and 2, but no explanation of meaning of 1 and 2 given in text.

(2) Do not know what is really meant by "alternative". What are the alternatives being considered for specific allotments?

(3) No mention is made of present Range User - B.L.M. cooperation in current management; i.e., deferred grazing (as defined in appendix G).
Appendix E seems to suggest that deferred grazing is the wrong alternative plan.

The phone calls did help to clarify points in the manual.

Sincerely,

Gloria O'Connell

Gloria O'Connell
Round Grove Ranch

76a

William V. Peterson
213 Holcomb Ave. N.
Litchfield, Minnesota 55355

May 15, 1983

Dan Lechefsky, Project Manager
Butte District Office, B.L.M.
Butte, Montana

Dear Sir:-

I am commenting on the (R.M.P./E.I.S.) for the Headwaters Resource Area.

I strongly support the position taken by the Wilderness Society, Sierra Club, etc. in this matter.

Let us preserve & protect as much Habitat & Wilderness & the environment as we possibly can on this Earth!!

Sincerely,

William V. Peterson

77a

2110 Bradbrook Court
Billings, MT 59102

July 5, 1983

Mr. Dan Lechefsky, Project Manager
Headquarters Resource Area "draft EIS"
Butte District Office, BLM
P. O. Box 3388
Butte, Montana 59702

Dear Si5:

Herewith one of your maps of the Headquarters Resource Area with circles showing the areas and the comment on the reverse of the map. I didn't try to show the exact locations -- just marked the approximate township locations -- hope this is satisfactory.

As a general rule, I do not favor "sale," but trade or exchange to block up holdings. BLM land adjacent or near holdings of other state or federal agencies might be considered to be disposed of only if those agencies are managing for wildlife. I do not favor disposal when such disposal blocks up land for "sodbusters," we've had too long history of breaking land that otherwise should have been left in "grass."

Very truly yours,

James Phelps

Attachment

80a

Dear Sir:

In reading through Headwaters Resource Area Resource Management Plan/ Environmental Impact Statement, I thought that you should know that the Teton County SCS, the Forest Service, and Mr. Newman have the first and only working joint agreement. This is on the Blind Horse Creek or we call it Chicken Coulee Allotment.

The trip we took into this area last year was very impressive on development of their water sources for better utilization of the range grass. The range was not over grazed. Mr. Newman was rotating the pastures. He is trying to improve the vegetation from the time he took the allotment over.

As a board of supervisors of Teton SCS we are opposed to any more wilderness in the area. The people in the county cannot afford to protect people from the grizzly bears. Also no state nor federal agency has the man power to do this. So why promote the increase in the grizzly bear population?

We are hoping to have another joint tour of this area in August of this year. After seeing it last year it will be interesting to see if there are any changes. Also to see how the draws come back from the large hail storm they had prior to our trip last year. I would be opposed to eliminating cattle from this allotment down the road.

I have not seen the other allotments in Teton County, but would be opposed to have them in wilderness.

Yours Truly

Charles W. Proff

Chairman, Teton SCS

Will you let us know how the final study comes out. Thank you.

(Typed for reproduction in the final RMP/EIS)

82a

2621 NE 53rd Street
Lighthouse Point, Florida 33064
May 15, 1983

Mr. Dan Lechefsky
Project Manager
Butte District Office
BLM
P.O. Box 3388
Butte, Montana 59702

Dear Mr. Lechefsky:

Regarding the Headwaters Resource Area Resource Management Plan EIS, I support ~~Support~~ the adoption of Alternative C including the establishment of five wilderness areas totaling 17,197 acres. It is important that certain areas remain in primitive condition to protect wildlife, scenic, and other values.

Sincerely,

Reed Seaord

Reed Seaord

RECEIVED
MAY 20 1983
Bureau Of Land Management
Butte District Office

83a

John R. Swanson
P.O. Box 922
Berkeley, Calif. 94701
July 7, 1983

Mr. Dan Lechefsky
Project Manager
Butte District Office, BLM
Butte, Montana 59702

Dear Mr. Lechefsky:

Please accept my comments, as follows, concerning:

~Headwaters Resource Area, Resource Management Plan/Environmental Impact Statement ~

I have lived and worked in this area of Montana and first became acquainted with such region of this state nearly fifty years ago.
And remain of the firm opinion that this area of the State of Montana contains outstanding wilderness, scenic, wildlife, fish, botanic and cultural resources of certain national importance; significant segments of our nations natural heritage; and areas that provide a vital refuge for man and for all life on this endangered planet.
I urge that our public lands be managed as a preserve.
To protect ecosystems, preserve watersheds, save and enhance wildlife and fish and their respective habitats, expand and strengthen wilderness, promote biological diversity and to recover and restore used-damaged lands to their natural environmental condition.
The basic-fundamental-purpose of the public lands is to preserve permanently the wilderness, scenic, wildlife, fish, botanic and cultural resources found on such land and water areas.
The following areas, with acreage, as managed by the Bureau of Land Management, Headwaters Resource Area, to receive full wilderness classification and to be added to any national wilderness preservation system:

Blind Horse Creek 6,000
Chute Mountain 3,500
Deep Creek-Battle Creek 4,000
North Fork, Sun River Complex 650
Beaver Meadows Complex 1,700
Sleeping Giant 7,000
Elkhorn 4,500
Black Sage Complex 7,000
Yellowstone River Island 56

Plus, additional area-acreage to be included in our wilderness system and to total some 50,000 acres.
For a grand total of some 85,000 acres of Bureau of Land Management units in this Headwaters Resource Area added to our National Wilderness Preservation System.
Gas, oil and coal development will surely decimate this resource area; both Bureau lands and all other lands.

83b

And remain very much opposed to the sale of any public lands. As it appears to be a felony!
Also we must accept that when we save wilderness; we save America.

Sincerely,

J. R. Swanson

(Typed for reproduction in the final RMP/EIS)

84a

Mr. Dan Lechefsky, Project, Project Manager
Butte District Office, BLM
P.O. Box 3388
Butte, MT 59702

Dear Mr. Lechefsky:

We think that Alternative C is the best--or at least the least harmful of the alternatives.

Coal and gas are finite resources and if we damage the environment the harm which we do will probably remain long after the coal, gas and minerals has been used up and can no longer be exploited. But we cannot expect the present administration in Washington to consider that as all that they can see is today' monetary profits which are directly before them.

There are many alternative energy sources which are not finite but because no one source would solve the whole problem fat too little attention has been paid to them.

Yours truly, Ethel W. Thornley

Mr. & Mrs. R Poland, Mr. & Mrs. L Harwood, Mrs. G Munn, Mr. & Mrs. G Penson, Mr. & Mrs. C Pyle, Mr. & Mrs. P Colette, Mrs. S Varom, Mr. & Mrs. N Colette, Mr. & Mrs. L Grames, Mr.&Mrs.T Szabo.

Ms. Ethel W. Thornley
18653 Schoolcraft
Detroit, MI 48235

85a

EASTERN
MONTANA COLLEGE
1500 North 30th Street
Billings, Montana 59101-0298

DEPARTMENT OF SOCIOLOGY
AND POLITICAL SCIENCE
(406) 657-2311/2138

May 24, 1983

Jack A. McIntosh, Dist. Manager
U. S. Dept. of the Interior
B.L.M., Dist. Office
Box 3388
Butte, Montana 59702

Dear Mr. McIntosh:

I do not approve of the sale of any public lands, however, I do appreciate the materials you recently sent me. I have received the draft environmental impact statement on the Headwaters Resource Area Resource Management Plan and the Land Ownership Adjustments map. I am working through the environmental impact statement and once I have a grasp of what is being said, I will offer my comments.

Sincerely yours,

Richard Waltner, Ph.D.
Professor, Sociology

MAY 25

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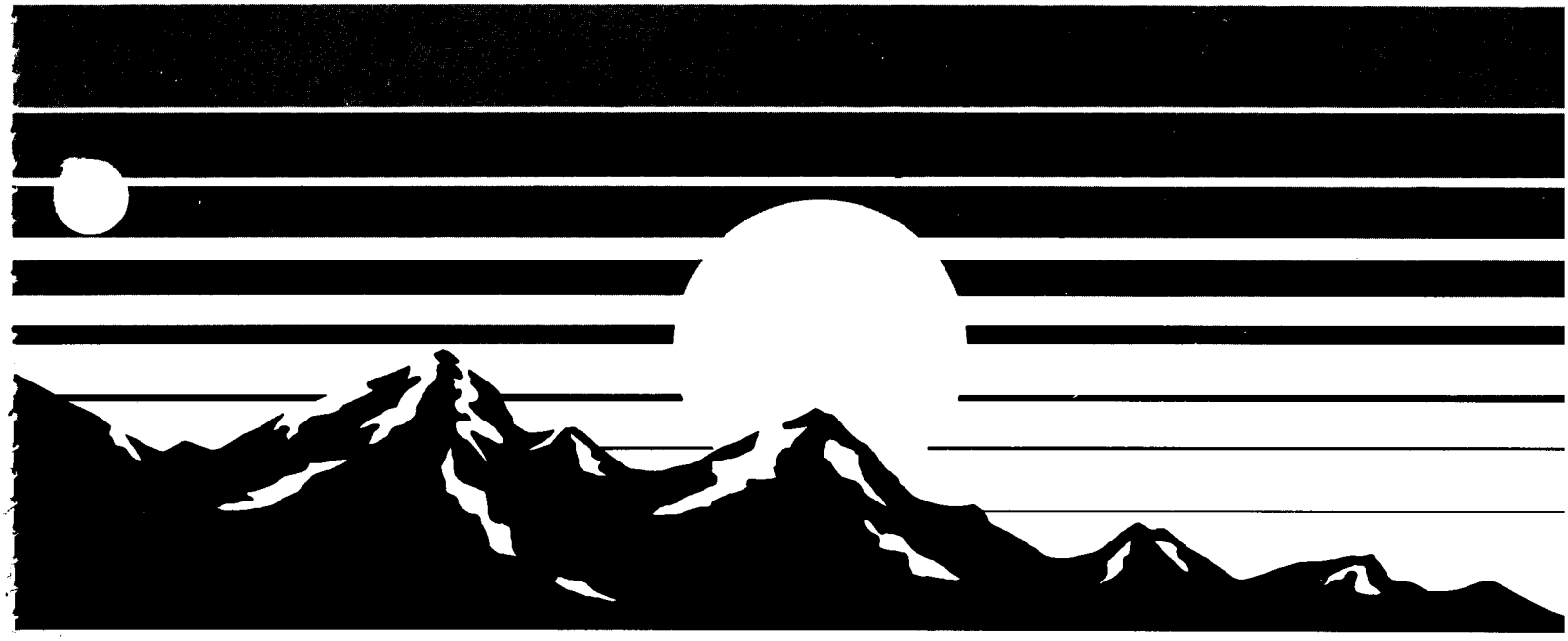

GLOSSARY

(See Draft Environmental Impact Statement)

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(See Draft Environmental Impact Statement)

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