FINAL

United States Department of the Interior
Bureau of Land Management
Montana State Office

United States Department of Agriculture
Forest Service
Northern Region

January 2001

OFF-HIGHWAY VEHICLE
ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED PLAN AMENDMENT FOR MONTANA, NORTH DAKOTA AND PORTIONS OF SOUTH DAKOTA

Department of the Interior
Bureau of Land Management
Montana State Office
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Billings, Montana 59107-6800

Department of Agriculture
Forest Service
Northern Region
P.O. Box 7669
Missoula, Montana 59807

Dear Reader:

Enclosed is the Final Off-Highway Vehicle (OHV) Environmental Impact Statement and Proposed Plan Amendment (FEIS). This FEIS discloses the potential environmental consequences of changing OHV area designations on public lands administered by the Bureau of Land Management (BLM) and Forest Service (FS), Northern Region, in Montana, North Dakota, and portions of South Dakota (excluding the Black Hills National Forest, Buffalo Gap Grasslands and the Fort Pierre Grasslands). The BLM and FS are joint lead agencies responsible for preparation of the FEIS.

The FEIS incorporates comments and suggestions made on the draft OHV EIS and plan amendment (DEIS) during the public review period which began in November 1999 and ended in February 2000. Chapter 4 of the FEIS contains the public comments received and the agencies' responses to those comments.

A new alternative, Alternative 5, the Preferred Alternative in the FEIS, was developed in response to comments on the DEIS from the public and other agencies. The Preferred Alternative restricts motorized wheeled cross-country travel throughout the analysis area to protect riparian areas, wetlands, crucial wildlife habitat, threatened or endangered species, soils and vegetation, and to reduce user conflicts. The alternative addresses the concern that the agencies need to allow for some motorized wheeled cross-country travel for administrative use, lessee and permittee use, and camping but includes specific limitations on the use of vehicles traveling cross-country.

Some of the differences between the FEIS and the DEIS include:

* Alternative 5 clarifies the long-term goal of designated roads and trails through subsequent site-specific planning. Chapter 1 has been revised to clarify the agencies' two decision levels for travel planning and Appendix B has been revised to clarify the implementation of area designations and guidance for site-specific planning.

* Alternative 5 clarifies that motorized wheeled cross-country travel for official administrative use by the BLM and FS, other government entities, and lessees and permittees would be limited to the minimum necessary to accomplish required work.

* Alternative 5 would not allow motorized wheeled cross-country travel for big game retrieval, although use of roads and trail to retrieve big game could continue.

* Disabled access will be allowed per the Rehabilitation Act of 1973. This applies to all alternatives as discussed under Management Common to All Alternatives in Chapter 2 of the FEIS.

* The FEIS would not affect the BLM intensive OHV use area (500 acres) near Radersburg, Montana, nor the National Forest System lands (3,600 acres) involved in the Recreation Management Plan for the Lake Kookanusa drawdown area on the Kootenai National Forest.

The FS planning process includes an opportunity for review and appeal pursuant to the regulations in 36 CFR 217. The FS appeal process is explained in the FS Record of Decision.

The BLM's resource management planning process includes an opportunity for administrative review via a plan protest to the BLM's Director. The BLM protest process is explained in the attachment to this letter.

We thank the individuals and organizations who participated in our planning process, helping us to prepare a plan amendment that will lead to more effective and efficient management of public lands. Your interest is appreciated. For additional information, please contact your local BLM or FS office or contact Jerry Majerus (BLM) at (406) 538-1924 or Dave Atkins (FS) at (406) 329-3134. You can also visit our website at www.mt.blm.gov or www.fs.fed.us/r1.

Mat Millenbach
State Director

Dale N. Bosworth
Regional Forester

Attachment - BLM Protest Process

The BLM's resource management planning process includes an opportunity for administrative review via a plan protest to the BLM's Director. Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval of an amendment to an RMP may protest such approval. Careful adherence to the following guidelines will assist in preparing a protest that will assure the greatest consideration to your point of view.

Only those persons or organizations who participated in the planning process may protest. A protesting party may raise only those issues which were commented on during the planning process. New issues may be raised at any time but should be directed to the appropriate BLM field office for consideration in plan implementation, as potential plan amendments, or as otherwise appropriate.

The period for filing protests begins when the Environmental Protection Agency publishes in the *Federal Register* its Notice of Receipt of the FEIS. The protest period extends for 30 days. There is no provision for any extension of time. To be considered "timely," your protest must be postmarked no later than the last day of the protest period. Also, although not a requirement, we suggest that you send your protest by certified mail, return receipt requested.

Protests must be filed in writing to:

Director, Bureau of Land Management
Attention: Ms Brenda Williams, Protest Coordinator
WO-210/LS-1075
Department of the Interior
Washington, D.C. 20240

In order to be considered complete, your protest must contain, at a minimum, the following information:

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

2. A statement of the issue or issues being protested.

3. A statement of the part or parts of the amendment being protested. To the extent possible, this should be done by reference to specific pages, paragraphs, sections, tables, maps, etc. included in the proposed amendment.

4. A copy of all documents addressing the issue or issues submitted during the planning process by the protesting party or an indication of the discussion date of the issue(s) for the record.

5. A concise statement explaining why the proposed decision is believed to be incorrect. This is a critical part of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents, environmental analysis documents, available planning records (i.e., meeting minutes or summaries, correspondence, etc.). A protest which merely expresses disagreement with the proposed decision, without any data will not provide us with the benefit of your information and insight. In this case, the Director's review will be based on the existing analysis and supporting data.

At the end of the 30-day protest period, the BLM may issue a Record of Decision, approving implementation of any portions of the proposed plan amendment not under protest. Approval will be withheld on any portion of the plan under protest until the protest has been resolved.

OFF-HIGHWAY VEHICLE FINAL ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED PLAN AMENDMENT FOR MONTANA, NORTH DAKOTA, AND PORTIONS OF SOUTH DAKOTA

January, 2001

Responsible Joint Lead Agencies	USDA Forest Service	USDI Bureau of Land Management
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ABSTRACT

This final environmental impact statement and proposed plan amendment (FEIS) describes the analysis that was completed on the proposed management changes in off-highway vehicle (OHV) area designations on public lands administered by the Bureau of Land Management and Forest Service, Northern Region, in Montana, North Dakota, and portions of South Dakota.

The FEIS was developed to meet the purpose and need of the project and respond to significant issues. The purpose and need are to avoid future impacts from increasing OHV use and address the impacts of OHV travel on open areas that are currently available to motorized wheeled cross-country travel. Public comments on the draft environmental impact statement and plan amendment (DEIS) were considered in development of this FEIS in order to verify significant issues, modify alternatives, and correct and clarify information presented in the DEIS. A new alternative (Alternative 5) has been developed in response to comments on the DEIS from the public and other agencies and is the preferred alternative. The preferred alternative would restrict motorized wheeled cross-country travel yearlong and would include an exception for camping. Disabled access will be allowed per the Rehabilitation Act of 1973. In addition, five other alternatives, including a No Action Alternative, were also fully developed, analyzed, and considered. The No Action Alternative would maintain current management. Areas currently open seasonally or yearlong to motorized wheeled cross-country travel would remain open. Alternatives 1 and 2 would restrict motorized wheeled cross-country travel yearlong. Alternative 3 would restrict motorized wheeled cross-country travel yearlong in North Dakota, most of Montana, and portions of South Dakota. Alternative 4 would limit motorized wheeled cross-country travel seasonally. Disabled access will be allowed per the Rehabilitation Act of 1973 in all alternatives. Exceptions for camping and game retrieval would apply in Alternatives 2, 3, and 4. An exception for camping would apply in Alternative 1.

SUMMARY

INTRODUCTION

This is a summary of the final environmental impact statement and proposed plan amendment (FEIS), which discloses the potential environmental consequences of managing motorized wheeled cross-country travel on lands administered by the Bureau of Land Management (BLM) and Forest Service (FS). The BLM and FS, referred to in this document as "the agencies," are joint lead agencies responsible for preparation of this FEIS. Oftentimes, BLM and National Forest System (NFS) lands are intermingled, and the agencies believe it is better customer service to have consistent policies across agency boundaries.

The FS and BLM are proposing to limit/restrict motorized wheeled cross-country travel on lands administered by the agencies in Montana, North Dakota and portions of South Dakota (excluding the Black Hills National Forest, Buffalo Gap National Grassland and Fort Pierre National Grassland). The purpose of this proposal is to avoid future impacts to public resources likely to result from the increasing use of off-highway vehicles (OHV's) on these lands and to provide direction for subsequent site-specific planning for motorized recreation opportunities.

Each BLM field office, and FS national forest and grassland manages OHV use based on its BLM resource management plan or FS land and resource management plan (referred to as forest plans). This FEIS would amend those plans.

PURPOSE AND NEED

Purpose

The purpose of this FEIS is to avoid future impacts from the increasing use of OHV's on areas that are currently available to motorized wheeled cross-country travel. It would amend forest plan and resource management plan OHV area designations to protect natural resource values. This would provide timely direction that would minimize further resource damage, user conflicts and related problems, including new user-created roads, associated with motorized wheeled cross-country travel until subsequent site-specific planning is completed. Site-specific planning would address OHV use on individual roads and trails to provide for a range of safe motorized recreation opportunities while continuing to protect resource values. This FEIS would not change the current limited/restricted yearlong, or closed area designations or designated OHV intensive use areas. This FEIS would not change current road or trail designations.

Existing Condition

About 16 million acres of public land are currently designated as available to motorized wheeled cross-country travel either seasonally or yearlong. During the past 10 years, OHV use and associated cross-country travel have increased in some areas. The estimated number of vehicles used off-highway across the three-state area increased dramatically in the 1990's. Between1990 and 1998 the number of registered ATV's and motorcycles increased 92%. The increased use has resulted in environmental effects on public resources in numerous areas, including roads and trails that have developed as the result of repeated use. Problems do not occur equally throughout the analysis area. Some of this use has occurred in riparian areas and on highly erodible slopes. In other areas use is very light and little or no effects from motorized wheeled cross-country travel are evident.

Desired Condition

The goal of managing OHV's is to provide a range of safe motorized recreation opportunities, recognizing their legitimate use while minimizing the current or anticipated effects on wildlife and their habitat, soil, native vegetation, water, fish and other users. The long-term goal is that OHV use would occur on designated routes and intensive use areas to provide a variety of motorized and nonmotorized recreation opportunities. However, designation of specific routes requires local site-specific planning consistent with the resource management or forest plan. In the interim period before designation of travel routes can be accomplished, it is desirable to take the first step and restrict motorized wheeled cross-country travel. The designation of areas to the limited/restricted category in the resource management plan or forest plan can be accomplished programmatically for both agencies in the three-state area and is a valuable step towards the long-term goal.

Need

In comparing the existing condition to the desired condition, OHV use and associated effects have increased in many areas since forest plans and resource management plans were completed. The BLM and FS are concerned that continuing unrestricted use could potentially increase the spread of noxious weeds, cause erosion, damage cultural sites, create user conflicts, disrupt wildlife and damage wildlife habitat. The trend of increased use is expected to continue. In order to minimized further resource damage in areas already experiencing increased activity and to avoid

future impacts in areas not yet affected, management of OHV use needs to be reviewed.

ISSUES

Primary Issues

Five primary issues were identified that reflect concerns or conflicts that could be partially or totally resolved through the EIS process. These issues are: need for plan amendment, exceptions, enforceability, flexibility, and identified problems. While these five issues are by no means the complete list of concerns identified during the public scoping process and comments on the DEIS, they did help guide the development of the alternatives. The following discussion provides a brief summary of these issues.

Need for Plan Amendment: Some of the public expressed concern that the proposal is not needed or is too restrictive. Of particular concern was the need for OHV decisions to be made at the local level rather than for a three-state area. Others expressed concern that the proposal was not restrictive enough and the agencies could not wait 10 to 15 years to complete site-specific planning.

Exceptions: Some of the public expressed concerns of whether or not exceptions for motorized wheeled cross-country travel should be allowed. These include camping, firewood gathering, disabled access, game retrieval, BLM and FS administrative use, and effects on lessees and permittees.

Enforceability: Some of the public expressed concerns that the proposal needs to be enforceable and provide consistency between the two agencies. The proposal also needs to provide implementation of the Executive Orders (EO) and regulations pertaining to OHV's.

Flexibility: Some of the public expressed concerns that the proposal needs to be flexible and allow motorized wheeled cross-country travel or allow exceptions under certain conditions. The proposal needs to look at seasonal, rather than yearlong restrictions, when problems are occurring. The proposal should only address problems where they occur.

Identified Problems: Some of the public expressed concerns that the proposal needs to look at the trend in identified problems to stop further adverse effects of motorized cross-country travel. Concerns have also been raised that the agencies do not have justification for the proposal and should only look at areas with specific problems.

Resource Issues

A number of issues were brought up that were important for the analysis. Details of the effects on specific resources have been addressed in Chapter 3 of the FEIS. They are listed as follows:

In areas open seasonally or yearlong, what are the effects of OHV travel to:

- scenery and aesthetics,
- other forms of recreation (user conflicts),
- noise pollution and serenity for other recreation users,
- Inventoried Roadless, Recommended Wilderness, and Wilderness Study Areas,
- economics of recreation opportunities,
- cultural resources and tribal use,
- the spread of noxious weeds,
- native vegetation,
- threatened, endangered and sensitive species, wildlife habitat and its effectiveness, and wildlife displacement,
- water quality, soil erosion, wetlands and riparian areas, and
- air quality.

Other Issues

A number of other issues were also raised during the scoping process that needed to be addressed and are discussed in more detail in Chapter 1 of the FEIS. These issues are listed as follows.

- Are current laws and regulations adequate to provide for OHV use and provide for protection of other resources?
- What are the effects of further OHV travel restrictions on personal freedom and the right to access public land?
- How can a one-size-fits-all decision work for a three-state area?
- How will site-specific problems be addressed soon enough with a 10-15 year window for completion of site-specific planning?
- How will the decision affect the North Dakota and South Dakota state section line laws and R.S. 2477?
- How will the decision affect the status of user-created roads and trails?
- How will the decision affect the 40"/50" rule for OHV's?
- What is an existing road or trail?
- How will the decision affect existing permits and leases?
- How will the decision be implemented and how will roads and trails be signed?

ALTERNATIVES

Alternatives Considered in Detail

Management Common To All Alternatives: The following management guidance will continue, regardless of which alternative is selected, and is common to all alternatives.

There are six BLM OHV intensive use areas in Montana (4,210 acres) that would remain open to motorized wheeled cross-country travel under all the alternatives; South Hills area near Billings, Glendive OHV area near Glendive, Terry OHV area near Terry, Glasgow OHV area near Glasgow, Fresno OHV area near Havre, and Radersburg OHV area near Radersburg. In addition, there are some isolated BLM lands (5,500 acres) that would remain open. These isolated lands were addressed in the Elkhorn Mountains Travel Management Plan (1995). Also, the drawdown area (3,630 acres) around Lake Koocanusa on the Rexford District of the Kootenai National Forest would not be affected by any of the alternatives. The drawdown area is currently being addressed in the Rexford District Recreation Management Plan.

The BLM and FS regulations (43 CFR 8341.2 and 8364.1 and 36 CFR 295.2 and 295.5) allow for area, road or trail closures where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, threatened or endangered species, other authorized uses, or other resources. The authorized officer can immediately close the areas affected until the effects are eliminated and measures are implemented to prevent future recurrence.

Disabled access will be allowed per the Rehabilitation Act of 1973. Under the Act, an individual with a disability will not, solely by reason of her or his disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity conducted by the BLM or FS. Disabled access per the Rehabilitation Act is considered at the local level on a case-by-case basis. Motorized wheelchairs, as defined in the Rehabilitation Act, are not considered OHV's and therefore are not restricted by any of the alternatives.

The BLM and FS will consult in accordance with Section 7 of the Endangered Species Act (ESA) through the U.S. Fish and Wildlife Service (FWS) to ensure that any site-specific plan is not likely to jeopardize the continued existence of any species listed or proposed to be listed under the provisions of the ESA, or result in the destruction or adverse modification of designated or proposed critical habitat. Access standards in effect for existing recovery plans will be followed in all site-specific plans. In addition, the authorized officer can immediately close areas, roads, or trails if OHV use is causing or will cause considerable adverse environmental effects to species listed or proposed to be listed. Information on consultation for this FEIS is contained in Appendix C.

Under Alternatives 1-5, after this FEIS is completed, the BLM and FS would continue to develop site-specific plans (i.e., landscape analysis, watershed plans, or activity plans) for geographical areas. Through site-specific planning, roads and trails would be inventoried, mapped, analyzed, and designated as open, seasonally open, or closed. In addition, site-specific planning could identify opportunities for trail construction and/or improvement, or specific areas where intensive OHV use may be appropriate. Implementation and monitoring are described in Appendix B. Implementation includes prioritizing areas for site-specific planning within six months of the respective agencies' Record of Decision based on the resources in the area, such as riparian areas and threatened or endangered species along with opportunities for recreational OHV use.

The Alternatives: Six alternatives, including the No Action Alternative, were developed and analyzed in detail. The major management actions and environmental consequences of the six alternatives are summarized in Tables S.1 and S.2. These tables are summaries of the alternative descriptions contained in Chapter 2 and the environmental consequences in Chapter 3. The reader is referred to the text in those chapters for specifics and more detail about the information in the tables.

Alternatives Eliminated from Detailed Study

The following alternatives were eliminated from detailed study because they do not meet the purpose and need and/or due to technical, legal, or other constraints. More detail on these alternatives and why they were eliminated from detailed study can be found in Chapter 2 of the FEIS.

- Forest Service Development Roads and Trails and BLM Designated Routes
- Snowmobiles
- Site-Specific Alternatives
- Block Management
- Restrict Areas Greater than 5,000 Acres and Close All Areas to Off-Highway Vehicle Use
- Closed Unless Posted Open
- Montana State Lands Policy

Table S.1 Summary of Alternatives

Management	*No Action (Current Management)*	*Alternative 1*	*Alternative 2*	*Alternative 3*	*Alternative 4*	*Alternative 5 (Preferred Alternative)*
Areas open yearlong or seasonally	Areas currently open	None	None	Flathead NF, Kootenai NF and Bitterroot NF	Open 6/15 to 8/31 and 12/2 to 2/15 in all areas currently open	None
Prohibits motorized wheeled cross-country travel	No	Yes	Yes	Yes, except in Flathead NF, Kootenai NF and Bitterroot NF	Restricted seasonally	Yes
Emergency use	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed
Administrative use	Allowed	Authorization required	Allowed	Allowed	Allowed	Allowed as outlined by internal memo
Lease and permit holders	Allowed	Not allowed unless specifically authorized	Allowed unless specifically prohibited	Allowed unless specifically prohibited	Allowed unless pecifically prohibited	Allowed unless specifically prohibited
Exceptions for Motorized Wheeled Cross-Country Travel						
- Camping	Allowed	Within 50 feet of roads and trails by the most direct route	Within 300 feet of roads and trails by the most direct route	Within 300 feet of roads and trails by the most direct route	Within 300 feet of roads and trails by the most direct route	Within 300 feet of roads and trails by the most direct route
- Game retrieval	Allowed	Not allowed	Allowed by the most direct route in portions of eastern Montana.* Not allowed in other areas. Could be modified in site-specific planning	Allowed from 10 a.m. to 2 p.m. by the most direct route Could be modified in site-specific planning	Allowed by the most direct route Could be modified in site-specific planning	Not allowed. Retrieval would be allowed on roads and trails unless currently restrcicted.
- Disabled access	Allowed per Rehabili-tation Act	Allowed per Rehabili-tation Act	Allowed per Rehabili-tation Act	Allowed per Rehabili-tation Act	Allowed per Rehabili-tation Act	Allowed per Rehabili-tation Act
- Firewood and Christmas tree cutting	Specified by permit	Not allowed	Specified by permit at the local level	Specified by permit at the local level	Specified by permit at the local level	Specified by permit at the local level

* Game retrieval is allowed in Montana only in the following field units: Miles City FO, Billings FO, Malta FO, Lewistown FO with the exception of the Great Falls Field Station, and Custer NF with the exception of the Beartooth RD.

Table S.2 Summary of Environmental Consequences

Identified Environmental Issues	***No Action (Current Management)***	***Alternative 1***	***Alternative 2***	***Alternative 3***	***Alternative 4***	***Alternative 5 (Preferred Alternative)***
Recreation						
User Conflicts	User conflicts would continue to increase.	User conflicts associated with cross-country travel would be substantially reduced.	User conflicts associated with cross-country travel would be substantially reduced.	Effects under Alt. 2 would apply where motorized wheeled cross-country travel is prohibited. Effects under No Action would apply elsewhere.	Effects under No Action Alt. would apply from 6/15-8/31 and 12/2-2-15. Effects under Alt. 2 would apply during other time periods.	User conflicts associated with cross-country travel would be substantially reduced.
Motorized Recreation	Existing opportunities would remain.	Motorized users would have access to roads and trails. Cross-country travel eliminated.	Motorized users would have access to roads and trails. Cross-country travel eliminated.	Same as above.	Same as above.	Motorized users would have access to roads and trails. Cross-country travel eliminated.
Nonmotorized Recreation	Recreation experience would be reduced.	Recreation experience would improve.	Recreation experience would improve.	Same as above.	Same as above.	Recreation experience would improve.
Visuals	Objectives for scenic values may not be met.	Additional disturbances to visuals would be substantially reduced.	Additional disturbances to visuals would be substantially reduced.	Same as above.	Same as above.	Additional disturbances to visuals would be substantially reduced.
Roadless/Wilderness Study Areas	Motorized wheeled cross-country travel may have an effect on the naturalness of these areas.	This alt. would enhance the protection of the naturalness of these areas.	This alt. would enhance the protection of the naturalness of these areas.	Same as above.	Seasonal motorized wheeled cross-country travel may have an effect on the naturalness of these areas.	This alt. would enhance the protection of the naturalness of these areas.
Social						
Older Recreationists	Opportunity would be available to substitute motorized wheeled cross-country travel for activities that require more mobility. There is no clear evidence this is what people will choose to do as they age.	No opportunity would be available to substitute motorized wheeled cross-country travel for activities that require more mobility. There is no clear evidence this is what people will choose to do as they age.	No opportunity would be available to substitute motorized wheeled cross-country travel for activities that require more mobility. There is no clear evidence this is what people will choose to do as they age.	Opportunity would be available in some areas to substitute motorized wheeled cross-country travel for activities that require more mobility. There is no clear evidence that this is what people will choose to do as they age.	Opportunity would be available from 6/15-8/31 and 12/2-2/15 to substitute motorized wheeled cross-country travel for activities that require more mobility. There is no clear evidence this is what people will choose to do as they age.	No opportunity would be available to substitute motorized wheeled cross-country travel for activities that require more mobility. There is no clear evidence this is what people will choose to do as they age.

Identified Environmental Issues	***No Action (Current Management)***	***Alternative 1***	***Alternative 2***	***Alternative 3***	***Alternative 4***	***Alternative 5 (Preferred Alternative)***
Environmental Advocacy	This group feels that current management does not sufficiently protect resources on public lands.	This alt. may meet the desires of this group.	This alt. may meet the desires of this group.	This alt. may meet the desires of this group in most areas. In open areas, this group feels that current management does not protect resources on public lands.	This alt. would not meet the desires of this group because it may not go far enough to protect the resources on public lands.	This alt. may meet the desires of this group.
Lessees and Permittees	Motorized wheeled cross-country travel opportunities would be available to administer a lease or permit.	Motorized wheeled cross-country travel to administer a lease or permit would only be allowed under specific terms of the lease or permit.	Motorized wheeled cross-country travel opportunities would be available to administer a lease or permit.	Motorized wheeled cross-country travel opportunities would be available to administer a lease or permit.	Motorized wheeled cross-country travel opportunities would be available to administer a lease or permit.	Motorized wheeled cross-country travel opportunities would be available to administer a lease or permit.
Rural Communities/ Personal Freedom	This alt. would best respond to rural communities who prefer that current activities on public lands not be limited.	This alt. would not be consistent with rural communities' preference for leaving activities on public lands at current levels.	This alt. would not be consistent with rural communities' preference for leaving activities on public lands at current levels.	Effects under Alt. 2 would apply where motorized wheeled cross-country travel is prohibited. Effects under No Action Alt. would apply elsewhere.	This alt. would not be consistent with rural communities' preference for leaving activities on public lands at current levels.	This alt. would not be consistent with rural communities' preference for leaving activities on public lands at current levels.
Economics of OHV Industry	Minor increase in jobs is expected to increase due to projected increases in OHV's and trucks.	Minor reductions in jobs and employee compensations may occur.	Minor reductions in jobs and employee compensations may occur.	Minor reductions in jobs and employee compensations may occur.	Minor reductions in jobs and employee compensations may occur.	Minor reductions in jobs and employee compensations may occur.
Cultural Resources	This alt. would cause the greatest direct and indirect impacts to cultural sites in the analysis area.	This alt. would offer the most protection for cultural sites in the analysis area.	This alt. would offer protection similar to Alt. 1, with minor differences due to the exceptions.	Effects under Alt. 2 would apply where motorized wheeled cross-country travel is prohibited. Effects under No Action Alt. would apply elsewhere.	This alt. would cause direct and indirect impacts to cultural sites in the analysis area.	This alt. would offer protection similar to Alt. 1, with a minor difference due to the camping and permitted use exceptions.
Vegetation and Weeds	This alt. would have the greatest risk for expanding and introducing existing and new weeds to BLM and NFS lands.	This alt. would have the lowest risk for expanding and introducing existing and new weeds to BLM and NFS lands.	This alt. would have the third lowest risk for expanding and introducing existing and new weeds to BLM and NFS lands.	This alt. would have substantially less risk than the No Action Alt. because only 6.5 million acres would be open and of those lands, many acres would not be available because of dense forest cover. But it has more risk than alt. 1, 5 and 2.	Effects under this alt. would be similar to the No Action Alt.	This alt. would be similar to Alt. 1, with a minor difference due to the camping and permitted use exceptions.

Identified Environmental Issues	*No Action (Current Management)*	*Alternative 1*	*Alternative 2*	*Alternative 3*	*Alternative 4*	*Alternative 5 (Preferred Alternative)*
Wildlife	The current level of impact to wildlife and wildlife habitat would continue with this alt.	Direct and indirect effects would be reduced (habitat fragmentation, habitat abandonment, physiological effects, and indirect impacts of weeds).	Direct and indirect effects would be reduced (habitat fragmentation, habitat abandonment, physiological effects, and indirect impacts of weeds).	Effects under Alt. 2 would apply where motorized wheeled cross-country travel is prohibited. Effects under No Action Alt. would apply elsewhere.	Effects under No Action Alt. would apply from 6/15-8/31 and 12/2-2/15. Effects under Alt. 2 would apply during the other time periods. Overall, impacts to wildlife may be considerably less since closed period is when most travel occurs (fall hunting).	Direct and indirect effects would be reduced (habitat fragmentation, habitat abandonment, physiological effects, and indirect impacts of weeds).
Aquatic Resources	This alt. would provide no risk reduction for further impacts to aquatic resources.	This alt. would provide greatest risk reduction for further impacts to aquatic resources.	This alt. is similar to Alt. 5, with minor differences due to the additional exceptions.	Effects under Alt. 2 would apply where motorized wheeled cross-country travel is prohibited. Effects under No Action Alt. would apply elsewhere.	Overall, effects under this alt. would be less than those under No Action Alt. because there would be fewer days during which motorized wheeled cross-country travel could occur.	This alt. is similar to Alt. 1, with a minor difference due to the camping and permitted use exceptions.
Soils	This alt. would have the greatest potential to impact soil resources.	Impacts to soil resources would be kept to a minimum and widely dispersed.	Impacts to soil resources would be kept to a minimum and widely dispersed.	Overall accelerated soil erosion from motorized wheeled cross-country travel would be reduced, except if such travel were to occur in a concentrated manner.	This alt. would reduce soil erosion by reducing motorized wheeled cross-country travel to periods when soils are likely dry or frozen.	Impacts to soil resources would be kept to a minimum and widely dispersed.
Air	This alt. would have the greatest potential to influence short-term air quality in the immediate area.	This alt. would have reduced localized air effects from fewer user-created trails.	This alt. would have reduced localized air effects from fewer user-created trails.	Effects under Alt. 2 would apply where motorized wheeled cross-country travel is prohibited. Effects under No Action Alt. would apply elsewhere.	This alt. would offer no real difference from the No Action Alt.	This alt. would have reduced localized air effects from fewer user-created trails.
Minerals	This alt. would have no impact.	This alt. would cause increased administrative review before some routine activities could occur.	This alt. would have no impact to existing holders of mineral leases or permits. Some increase would occur in administrative review of casual use for pre-permit surveying and staking.	Effects under Alt. 2 would apply where motorized wheeled cross-country travel is prohibited. Effects under No Action Alt. would apply elsewhere.	Effects under No Action Alt. would apply from 6/15-8/31 and 12/2-2/15. Effects under Alt. 2 would apply during the other time periods.	This alt. would have no impact to existing holders of mineral leases or permits. Some increase would occur in administrative review of casual use for pre-permit surveying and staking.

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CHAPTER 1: PURPOSE AND NEED

INTRODUCTION

This programmatic final environmental impact statement and proposed plan amendment (FEIS) discloses the potential environmental consequences of managing motorized wheeled cross-country travel on lands administered by the Bureau of Land Management (BLM) and Forest Service (FS). The FS and BLM, referred to in this document as "the agencies," are joint lead agencies responsible for preparation of this FEIS. Oftentimes, BLM and National Forest System (NFS) lands are intermingled, and the agencies believe it is better customer service to have consistent policies across agency boundaries.

The FS and BLM are proposing to limit/restrict motorized wheeled cross-country travel on lands administered by the agencies in Montana, North Dakota and portions of South Dakota (excluding the Black Hills National Forest, Buffalo Gap National Grassland and Fort Pierre National Grassland). The purpose of this proposal is to avoid future impacts to public resources likely to result from the increasing use of off-highway vehicles (OHV's) on these lands and to provide direction for subsequent site-specific planning for motorized recreation opportunities.

Each BLM field office and FS national forest and grassland manages OHV use based on its BLM resource management plan or FS land and resource management plan (referred to as forest plans). This FEIS would amend the BLM and FS plans displayed in Table 1.1. The Lolo National Forest and Missoula Field Office are not affected by this decision because they have no lands open to motorized wheeled cross-country travel.

LOCATION OF THE ANALYSIS AREA

The BLM and FS Northern Region administer 26.6 million acres of public land in Montana, North Dakota, and portions of South Dakota. The BLM administers 8.4 million acres of public land within nine field offices and the FS administers 18.2 million acres of public land located within nine national forests and the Dakota Prairie Grasslands. About 16 million of the 26.6 million acres of BLM and NFS lands are currently designated as available to motorized wheeled cross-country travel, either seasonally or yearlong, and would be affected by this FEIS. Figure 1.1 displays the plans affected by this analysis. The field offices, national forests and grasslands and acres affectedare listed in Table 1.2.

BACKGROUND

The increased popularity and widespread use of OHV's on public lands in the 1960's and early 1970's prompted the development of a unified federal policy for such use. Executive Order (EO) 11644 was issued in 1972 and EO 11989 was issued in 1977 (Appendix A). They provide direction for federal agencies to establish policies and provide for procedures to control and direct the use of OHV's on public lands so as to (1) protect the resources of those lands; (2) promote the safety of all users of those lands; and (3) minimize conflicts among the various users on those lands. The BLM and FS developed regulations in response to the EO's (43 Code of Federal Regulations (CFR) 8340 and 36 CFR 216, 219, and 295). Under those regulations, OHV use can be restricted or prohibited to

Table 1.1 BLM Management Plans and Forest Service Forest Plans

BLM Management Plans	*FS Forest Plans*
Big Dry Resource Management Plan (1996)	Beaverhead National Forest Plan (1986)
Billings Resource Management Plan (1984)	Bitterroot National Forest Plan (1987)
Dillon Management Framework Plan (1978)	Custer National Forest Plan (1987)
Headwaters Resource Management Plan (1984)	(Includes Dakota Prairie Grasslands)
Judith-Valley-Phillips Resource Management Plan (1994)	Deerlodge National Forest Plan (1987)
North Dakota Resource Management Plan (1987)	Flathead National Forest Plan (1986)
Powder River Resource Management Plan (1986)	Gallatin National Forest Plan (1987)
South Dakota Resource Management Plan (1986)	Helena National Forest Plan (1986)
West HiLine Resource Management Plan (1988)	Kootenai National Forest Plan (1987)
	Lewis and Clark National Forest Plan (1986)

FIGURE 1.1
OHV EIS and Plan Amendment
Analysis Area

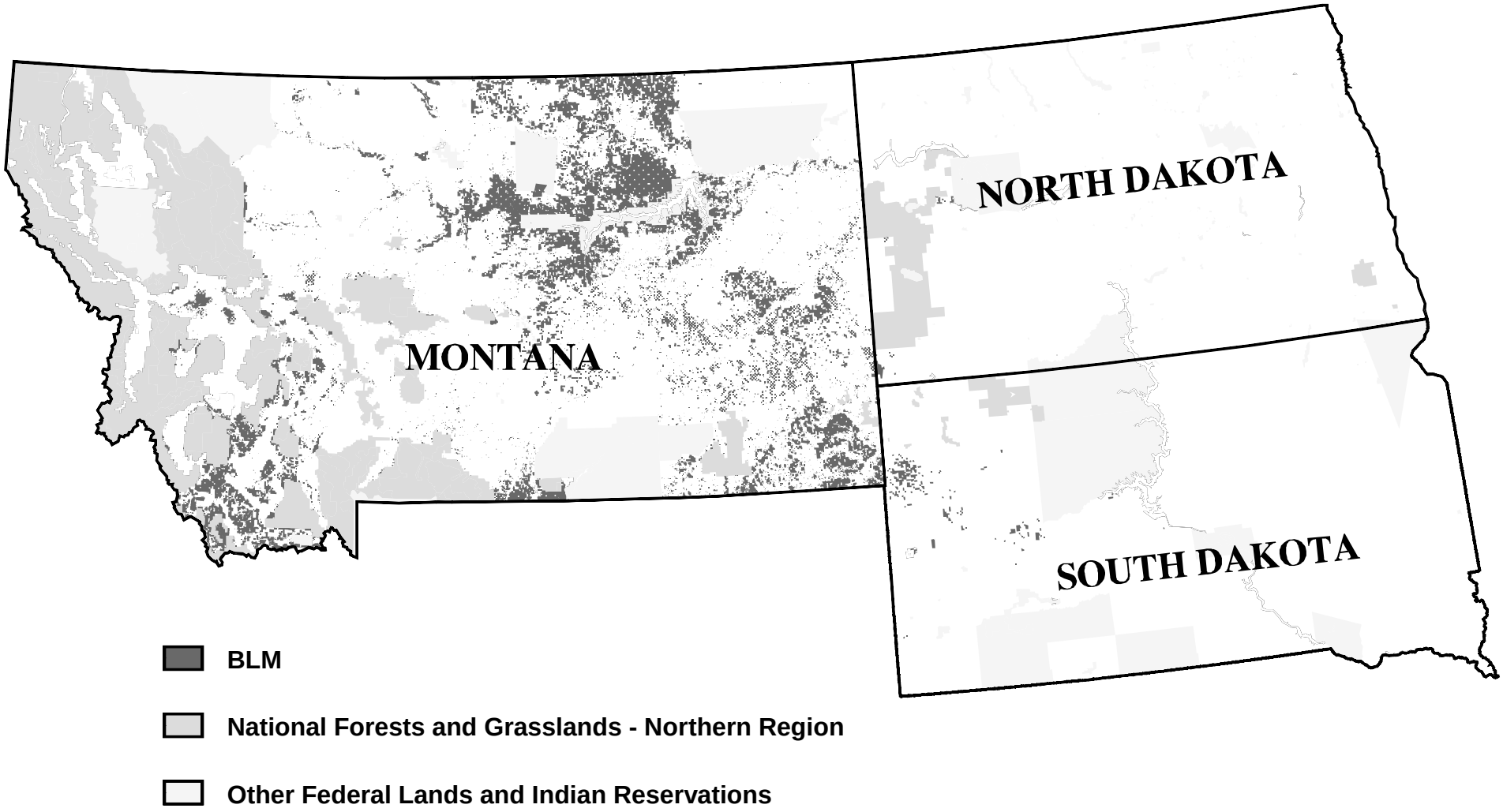


Table 1.2 Field Offices, National Forests and Grasslands					
BLM Field Offices	***Affected Acres***	***Total Acres***	***National Forests and Grasslands***	***Affected Acres***	***Total Acres***
Billings	317,000	426,000	Beaverhead-Deerlodge National Forest	1,921,000	3,352,000
Butte	182,000	311,000			
Dillon	792,000	968,000	Bitterroot National Forest	796,000	1,117,000
Lewistown	1,154,000	1,392,000	Custer National Forest	758,000	1,187,000
Malta	1,994,000	2,105,000	Dakota Prairie Grasslands	1,260,000	1,260,000
Miles City	1,070,000	2,699,000	Flathead National Forest	1,104,000	2,353,000
Missoula	0	163,000	Gallatin National Forest	780,000	1,801,000
North Dakota	58,000	60,000	Helena National Forest	576,000	975,000
South Dakota	274,000	281,000	Kootenai National Forest	1,546,000	2,220,000
			Lewis and Clark National Forest	1,347,000	1,862,000
			Lolo National Forest	0	2,082,000
Total	5,841,000	8,405,000	Total	10,190,000	18,210,000
			Total BLM and FS	16,031,000	26,615,000

minimize (1) damage to the soil, watershed, vegetation, or other resources of the public lands; (2) harm to wildlife or wildlife habitats; and (3) conflict between the use of OHV's and other types of recreation.

External and internal reviews have identified concerns with the BLM and FS implementation of the EO's (1995, General Accounting Office, Information on the Use and Impact of Off-Highway Vehicles; 1991, Department of Interior's Inspector General report on BLM's management of OHV activities; 1986, Forest Service review of its OHV program; and the 1979 Council on Environmental Quality review of Off-Road Vehicles on Public Land). These reviews have identified numerous resource concerns that would be addressed by this proposal.

The BLM and FS recognize in their respective resource management plans and forest plans, policy, and manual direction, that OHV use is a valid recreational activity when properly managed. Managing this use along with other recreation uses and the need to protect natural and cultural resources has become increasingly more difficult with increased public demands.

Planning for units of the National Forest System and for lands administered by the BLM involves two levels of decision (Figure 1.2). The first level, often referred to as programmatic planning, is the development or amendment of forest plans and resource management plans that provide management direction for resource programs, uses, and protection measures. Forest plans and resource management plans and associated amendments are intended to set out management area prescriptions or decisions with goals, objectives, standards, guidelines, terms, and conditions for future decision-making through site-specific planning. This

Pickup trucks are considered OHV's.

includes the designation of areas as closed, open or limited/restricted to motorized wheeled cross-country travel. The environmental analysis accomplished at the plan amendment level guides resource management decisions on public lands and aids, through the tiering process, environmental analyses for more site-specific planning. This FEIS is a programmatic document.

The second level of planning involves the analysis and implementation of management practices designed to achieve goals and objectives of the forest plan and resource management plan. This is commonly referred to as site-specific planning. It requires relatively detailed information that includes the location, condition, and current uses of individual roads and trails, and the identification of when and where individual roads and trails will be open or closed to various types of use. This step is accomplished through the site-specific planning process at the local level.

Figure 1.2 Decision Levels for Travel Planning

Decision Level One Forest Plans and Resource Management Plans		Decision Level Two Site-Specific Planning At the Local Level
Provides direction for acceptable uses and protection measures. Identifies goals, objectives, standards and guidelines for future decision-making through site-specific planning. Designates areas as closed, open, or limited/ restricted to motorized wheeled cross-country travel.	→	Provides analysis of site-specific road and trail management designed to achieve goals and objectives of the forest plan and resource management plan. Includes identification of when and where individual roads and trails would be open or closed to various types of use.

It is important for the reader to note that notwithstanding the provisions of this FEIS, when a specific road, trail or area has considerable adverse environmental effects occurring, the local manager has the responsibility and authority (36 CFR 295.5 and 43 CFR 8341.2 and 8364.1) to immediately close the road, trail or area to use until the problem has been resolved.

PURPOSE AND NEED

In general, the purpose of any proposal is to respond to an identified need. To adequately describe the need, it is important to understand the existing situation and the desired condition. The following section describes the purpose of this proposal and the identification of the needed changes.

Purpose

The purpose of this FEIS is to avoid future impacts from the increasing use of OHV's on areas that are currently available to motorized wheeled cross-country travel. It would amend forest plan and resource management plan OHV area designations to protect natural resource values. This would provide timely direction that would minimize further resource damage, user conflicts, and related problems associated with motorized wheeled cross-country travel, including new user-created roads, until subsequent site-specific planning is completed.

Site-specific planning would address OHV use on individual roads and trails to provide for a range of safe motorized recreation opportunities while continuing to protect resource values.

"User-created" roads and trails is an undefined term that some people use referring to the development of single or two-track roads or trails from repeated use by OHV's traveling cross-country. Other people use the term to include the development of roads and trails from activities that were authorized by the agencies, such as mining, range management, logging, and utility lines.

Still others include roads and trails that are the result of other activities, such as repeated use by motor vehicles to access a dispersed campsite, hiking and/or horse trails that have been created through repeated use over time, access to old homesteads, fireline construction, etc. Some of the above-described roads and trails have been in existence for decades, some pre-date the existence of agency management and have been used administratively, recreationally and by permittees.

Some people differentiate "user-created" roads and trails described above using FS roads and trails tracked for investment and maintenance purposes. The FS refers to these as forest development roads and trails.

Other people differentiate the "user-created" roads and trails described above by looking at BLM and FS published maps. The maps display primary roads and trails available to the public for recreational use. These maps do not attempt to show all roads and trails that exist on the landscape nor do they necessarily show all forest development roads and trails.

For the purposes of this FEIS, the term "user-created" refers to the development of single and two-track roads and trails from repeated use by OHV's traveling cross-country. This is the activity resulting in new, unplanned roads and trails appearing on the landscape in recent years.

This FEIS would not change the current limited/restricted yearlong or closed designations for areas, or designated OHV intensive use areas. This FEIS would not change current road or trail designations.

Existing Condition

About 16 million of the 26.6 million acres of BLM and NFS lands are currently designated as available to motorized wheeled cross-country travel, either seasonally or yearlong (Table 1.3).

Table 1.3 Affected Environment (Acres)

Agency	*Open Seasonally*	*Open Yearlong*	*Total*
BLM	887,000	4,954,000	5,841,000
FS	3,847,000	6,343,000	10,190,000
Total	4,734,000	11,297,000	16,031,000

During the past 10 years, OHV use and associated cross-country travel have increased in some areas. The estimated number of vehicles used off-highway across the three-state area increased dramatically in the 1990's (Table 1.4). The increased use has resulted in environmental effects on public resources in numerous areas, including roads and trails that have developed as the result of repeated use, often referred to as user-created.

Table 1.4 Percent Increase in Estimated Number of Vehicles Used Off-Highway from 1990-1998 Across the 3-State Area*

Trucks	13%
ATV's and Motorcycles	92%

*For additional information see Chapter 3, Economics Section

Problems do not occur equally throughout the analysis area. Some of this use has occurred in riparian areas and on highly erodible slopes. In other areas use is very light and little or no effects from motorized wheeled cross-country travel are evident.

Increased use of OHV's has the potential to:

- spread noxious weeds,
- cause erosion,
- damage cultural sites,
- create user conflicts, and
- disrupt wildlife and damage wildlife habitat.

OHV damage in meadow, Beaverhead-Deerlodge National Forest.

Monitoring of OHV travel at FS and BLM offices indicates that problems exist where unrestricted motorized wheeled cross-country travel is allowed. Some local agency offices are presently reevaluating their existing travel management plans or developing new plans. These plans are designed to determine the appropriate use of roads and trails to provide a reasonable mix of motorized and nonmotorized recreation opportunities while protecting other resource values. Many offices have begun or completed site-specific planning. Efforts include the Elkhorn and Little Belt Mountains on the Helena National Forest and Butte Field Office, portions of the Lewis and Clark National Forest, the Whitetail-Pipestone area on the Beaverhead-Deerlodge National Forest and Butte Field Office, and certain areas in the Miles City and Lewistown Field Offices. In response to resource problem areas, the agencies have implemented emergency closures related to OHV use (OHV project file). In addition to emergency closures, local managers have rehabilitated areas damaged by OHV use.

Members of the public and the Montana Fish, Wildlife and Parks Commission have shared their concerns about unrestricted OHV travel on public lands (OHV project file). The four BLM Resource Advisory Councils (citizen groups that represent a balance of commodity, conservation and other public interests in Montana, North Dakota, and South Dakota) expressed serious concerns about allowing continued, unrestricted motorized cross-country travel on public lands. They suggested changing the open or unrestricted designations that allow cross-country travel to designations that are more limited (OHV project file).

Desired Condition

The goal of managing OHV's is to provide a range of safe motorized recreation opportunities, recognizing their legitimate use while minimizing the current or anticipated

effects on wildlife and their habitat, soil, native vegetation, water, fish and other users (Appendix A). The long-term goal is that OHV use would occur on designated routes and intensive use areas to provide a variety of motorized and nonmotorized recreation opportunities. However, designation of specific routes requires local site-specific planning consistent with the resource management plan or forest plan. In the interim period before designation of travel routes can be accomplished, it is desirable to take the first step and restrict motorized wheeled cross-country travel. The designation of areas to the limited/restricted category in the resource management plan or forest plan can be accomplished programmatically for both agencies in the three-state area and is a valuable step toward the long-term goal.

Need

In comparing the existing condition to the desired condition, it is evident that OHV use and associated effects have increased in many areas since forest plans and resource management plans were completed. The BLM and FS are concerned that continuing unrestricted use could potentially increase the spread of noxious weeds, cause erosion, damage cultural sites, create user conflicts, disrupt wildlife and damage wildlife habitat. The trend of increased use is expected to continue. In order to minimize further resource damage in areas already experiencing increased activity and to avoid future impacts in areas not yet affected, management of OHV use needs to be reviewed.

Areas that are open seasonally or yearlong to motorized wheeled cross-country travel in current forest plans and resource management plans would require a plan amendment to address these issues. This proposal to manage the cross-country aspect of motorized wheeled vehicle use is part of the responsibility of public land managers to balance human use with the need to protect natural resources.

The FS Natural Resource Agenda has established a number of goals for maintaining and restoring the health, diversity, and productivity of the land, which include: protect and restore the settings of outdoor recreation; determine the best way to access the national forest or grassland; reduce impacts of the existing road system; restore watersheds; and provide an avenue to collaborate with communities, the private sector and other agencies. This FEIS will help initiate and address several of these goals.

The BLM has established standards that describe conditions needed to sustain rangeland health (BLM 1997). The standards address upland soils and watersheds, riparian and wetland areas, plant and animal communities, special status species, and water and air quality. Management of OHV use will help achieve those standards.

PROPOSAL

The proposal of this FEIS is to restrict motorized wheeled cross-country travel on approximately 16 million acres by amending forest plans and resource management plans. Through subsequent site-specific planning, the BLM and FS would designate roads, trails and intensive use areas (Appendix B).

SCOPE OF THE ANALYSIS

This FEIS is a programmatic document with a level of specificity and analysis that is broad in nature covering three states and two agencies. The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized cross-country travel (Table 1.3 and Map 1). Since this is a programmatic EIS, effects are estimated for the three-state area. The quantified effect levels in this FEIS should be considered relative, not absolute. These effects were estimated to provide a basis for comparison and choice among the alternatives.

The analysis area was chosen because it aligns well with the BLM Montana State Office jurisdictions and closely with the FS Northern Region without splitting state boundaries significantly.

After the FEIS is completed, the BLM and FS would continue to develop site-specific planning for geographical areas (i.e., landscape analysis, watershed plans, or activity plans). Through site-specific planning, roads and trails would be inventoried, mapped and designated as open, seasonally open or closed. In addition, site-specific planning may identify areas for additional trails, trail improvement, or specific areas where intensive use motorized wheeled cross-country travel may be appropriate. At that time, integration of other resource objectives, other types of recreational use, and ideas and concerns raised by the public would be incorporated.

ISSUES

An issue is a concern, dispute, or debate about the environmental effects of an action. Issues are identified through the scoping process and comments on a draft EIS with the public, other agencies, and internal review. A summary of the scoping process and comments on the draft EIS/plan amendment (DEIS) can be found in Chapter 4.

Primary Issues

Five primary issues were identified that reflect concerns or conflicts that could be partially or totally resolved through the EIS process. These issues are:

- Need for plan amendment,
- Exceptions,
- Enforceability,
- Flexibility, and
- Identified problems.

While these five issues are by no means the complete list of concerns identified during the public scoping process and comments on the DEIS, they did help guide development of the alternatives. The following discussion provides a brief summary of these issues.

Need for Plan Amendment: Some of the public expressed concern that the proposal is not needed or is too restrictive. Of particular concern was the need for OHV decisions to be made at the local level rather than for a three-state area. Others expressed concern that the proposal was not restrictive enough and the agencies could not wait 10 to 15 years to complete site-specific planning.

Exceptions: Some of the public expressed concerns of whether or not exceptions for motorized wheeled cross-country travel should be allowed. These include camping, firewood gathering, disabled access, game retrieval, BLM and FS administrative use, and effects on existing lessees and permittees. Some are concerned that the general public is unfairly constrained while special uses are not constrained. Other concerns are that exceptions are confusing and lead to abuse and enforcement problems. Additional concerns include the need to provide camping for dispersed recreation users and the need to allow for game retrieval in isolated areas.

Enforceability: Some of the public expressed concerns that the proposal needs to be enforceable and provide consistency between the two agencies. The proposal also needs to provide implementation of the EO's and regulations pertaining to OHV's. This should include education and signing.

Flexibility: Some of the public expressed concerns that the proposal needs to be flexible and allow motorized wheeled cross-country travel or allow exceptions under certain conditions. The proposal needs to look at seasonal, rather than yearlong, restrictions when problems are occurring. The proposal should only address problems where they occur.

Identified Problems: Some of the public expressed concerns that the proposal needs to look at the trend in identified problems to stop further adverse effects of motorized wheeled cross-country travel. Concerns have also been raised that the agencies do not have justification for the proposal and should only look at areas with specific problems.

Resource Issues

A number of issues were brought up that were important for the analysis. In a general sense, these issues have been defined in the Need section above. Details of the effects on specific resources have been addressed in their respective sections of Chapter 3, under Affected Environment and Environmental Consequences. The issues are listed below.

In areas open seasonally or yearlong, what are the effects of OHV travel to:

- scenery and aesthetics,
- other forms of recreation (user conflicts),
- noise pollution and serenity for other recreation users,
- Inventoried Roadless, Recommended Wilderness, and Wilderness Study Areas,
- economics of recreation opportunities,
- cultural resources and tribal use,
- the spread of noxious weeds,
- native vegetation,
- threatened, endangered and sensitive species, wildlife habitat and its effectiveness, and wildlife displacement,
- water quality, soil erosion, wetlands and riparian areas, and
- air quality.

Other Issues

A number of other issues were also raised during the scoping process that needed to be addressed. A brief discussion of how the issue is addressed in this FEIS is given after each issue listed below.

Are current laws and regulations adequate to provide for OHV use and provide for protection of other resources (e.g. wildlife, cultural, soils)?

A discussion on the EO's and CFR's pertaining to OHV use can be found in Chapter 1, Background. Details of the effects on specific resources are provided in Chapter 3.

What are the effects of further OHV travel restrictions on personal freedom and the right to access public land?

This proposal would not close existing roads or trails. Many BLM and FS regulations and policies recognize the importance of access to public lands through both motorized and nonmotorized means. This FEIS does not address overall access management needs but addresses the regulations resulting from EO's 11644 and 11989, which authorized land management agencies to manage OHV travel in a way that protects public resources, promotes safety and minimizes conflicts with other uses. Access management needs would be addressed during site-specific planning.

How can a one-size-fits-all decision work for a three-state area?

Oftentimes, BLM and NFS lands are intermingled, and the agencies believe it is better customer service to have consistent policies across agency boundaries. The analysis area was also chosen because it aligns well with the BLM Montana State Office jurisdictions and closely with the Northern Region of the FS without splitting state boundaries significantly. There are two levels of decisions for travel planning (Figure 1.2). This EIS is a broad programmatic decision across a three-state area and fits the first level of decision. The second level is local site-specific planning, which this document will not address.

How will site-specific problems be addressed soon enough with a 10-15 year window for completion of site-specific planning?

Site-specific planning is now occurring in several smaller areas within the three states, and these site-specific plans will be completed within the next year or two. The agencies recognize that problems are not occurring on every site throughout the analysis area. Therefore, the BLM and FS will continue to develop site-specific plans (watershed plans or activity plans) for priority areas based on factors identified in Appendix B. In addition, all national forests and grasslands within the Northern Region will address access and OHV management during forest and grassland plan revisions or amendments (the Dakota Prairie Grasslands currently has a draft Forest Plan Revision).

Existing authorities under the CFR's will continue to be used in site-specific cases where conditions warrant closure of areas or trails that are not meeting the intent of EO's 11644 and 11989.

How will the decision affect the North Dakota and South Dakota state section line laws and R.S. 2477?

This proposal would not diminish any rights under Revised Statute 2477 (R.S. 2477) dated July 26, 1866. Section 8 provided: "The right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted." Although this statute, 43 U.S.C. 932 (R.S. 2477), was repealed by Title VII of the Federal Land Policy and Management Act of October 21, 1976, many rights-of-way for public highways obtained under the statute exist or may exist on lands administered by the BLM and FS. The Secretary of the Interior has requested that the BLM defer any processing of R.S. 2477 assertions, except in cases where there is a demonstrated, compelling, and immediate need, until such time as the Department completes final rulemaking on the statute. The FS has had a moratorium against processing any R.S. 2477 assertions since September 25, 1997.

This proposal also would not change or preclude the opportunity for future county infrastructure needs.

How will the decision affect the status of user-created roads and trails?

The alternatives considered in this FEIS would not change the status of roads and trails in open or seasonally restricted areas that are currently in use. User-created roads and trails are a subset of the existing roads and trails (unclassified) found on the ground and are not part of the permanent (classified) transportation network. They will remain unclassified until site-specific planning determines if they should become part of the permanent system or be permanently closed.

The FS and BLM have a number of authorities that allow them to manage OHV's and user-created roads and trails under the CFR's. They include 36 CFR 219, 261 and 295 for the FS and 43 CFR 3840 for the BLM.

For the FS, under 36 CFR 261.10a, constructing, placing or maintaining any kind of road or trail is prohibited without a special use permit. These regulations are used when there is willful or criminal intent to build roads or trails on public land. In areas that allow motorized cross-country travel, the creation of trails through repeated use is generally not considered criminal or willful unless construction or maintenance activities are occurring.

For the BLM, in areas that allow motorized cross-country travel, the creation of roads or trails through repeated use is generally considered casual use. Casual use means activities involving practices that do not ordinarily cause any appreciable disturbance or damage to the public lands; however, to construct or maintain a road or trail on public land requires a right-of-way or temporary use permit and would not be considered casual use.

How will the decision affect the 40"/50" rule for OHV's?

Comments were made on the FS policy of allowing motorized vehicles less than 50" wide to travel on trails. The "50-inch" policy only applies to forest development trails,

commonly called "System Trails." This FEIS does not address specific trails. Rather, it addresses motorized wheeled cross-country travel; therefore, the 50-inch rule for trails is not addressed. Specific types of use will be addressed during site-specific planning.

What is an existing road or trail?

This FEIS addresses motorized wheeled cross-country travel. It is difficult to provide one definition of motorized wheeled cross-country travel and have that definition fit all situations. Roads and trails appear differently on the landscape because of the great variety of terrain, vegetation, soil type, and climate in Montana, North Dakota, and South Dakota. The definition of motorized wheeled cross-country travel is found in Chapter 2.

How will the decision affect existing permits and leases?

In the Preferred Alternative, access for federal lease or permit holders would be restricted to activities needed to administer their lease or permit; however, other alternatives have been considered in the FEIS. Details of the effects are provided in Chapter 3.

How will the decision be implemented and how will roads and trails be signed?

Chapter 2 describes each alternative and Appendix B explains how the decision would be implemented. None of the alternatives designate specific roads and trails and, therefore, would require minimal signing. Some informational signing would be needed. Maps would be revised to indicate the change in areas from open to limited/restricted yearlong (Appendix B). Signing of designated roads and trails would be done under site-specific planning.

PLANNING CRITERIA

Planning criteria have been developed to ensure that the plan amendment would be tailored to the issues identified and to ensure that unnecessary data collection and analysis would be avoided. These criteria may change in response to public comments and coordination with state or local governments and other federal agencies. The criteria are described below.

- A change in management direction will be accomplished through an interagency EIS/plan amendment. The BLM and FS are joint lead agencies in preparation of the FEIS.
- This FEIS will not change the current limited/restricted yearlong or closed area designations, or designated OHV intensive use areas.
- Exceptions for travel off roads and trails will be considered in the development of alternatives.
- OHV access allowed under the terms and conditions of a federal lease or permit should not be affected by the proposal.
- This proposal addresses motorized wheeled vehicles. Snowmobile use will not be addressed.
- Travel planning currently under consideration at individual BLM and FS offices will continue and those analyses will remain in place under the proposal.

RELATIONSHIP TO OTHER PLANS, DECISION DOCUMENTS AND REGULATORY AUTHORITY

Direction and authority for the proposal come from the National Forest Management Act (NFMA), the National Environmental Policy Act (NEPA), the Federal Land Policy and Management Act (FLPMA), and the Council on Environmental Quality (CEQ). NFMA, NEPA, FLPMA and CEQ provide general land management and environmental analysis direction. EO's 11644 and 11989 have given the BLM and FS the authority to manage OHV use. The CFR's, 36 CFR 219 and 295 for the FS and 43 CFR 8340 for the BLM, provide specific regulations for the agencies based on the EO's.

DECISIONS TO BE MADE

Decisions by the FS Regional Forester and BLM State Director to implement an alternative will be documented in each respective agency's Record of Decision.

CHAPTER 2: DESCRIPTION OF THE ALTERNATIVES

INTRODUCTION

This chapter presents the No Action Alternative and five other alternatives for management of off-highway vehicles (OHV's) on public lands administered by the Bureau of Land Management (BLM) and the Forest Service (FS) Northern Region in Montana, North Dakota, and portions of South Dakota (excluding the Black Hills National Forest, Buffalo Gap National Grassland and Fort Pierre National Grassland). The BLM and NFS lands affected by this proposal are those lands currently open seasonally or year-long to motorized wheeled cross-country travel.

This chapter is presented in six sections: Development of Alternatives; Management Common to All Alternatives; Alternatives Considered in Detail; Selection of the Preferred Alternative; Comparison of Alternatives; and Alternatives Eliminated from Detailed Study.

DEVELOPMENT OF ALTERNATIVES

The alternatives were formulated in response to the purpose and need and issues discussed in Chapter 1, which are to avoid future impacts from the increasing use of OHV's in areas that are currently available to motorized wheeled cross-country travel and to provide direction for subsequent site-specific planning for a range of safe motorized recreation opportunities.

As discussed in Chapter 1, there were five primary issues identified that reflect concerns or conflicts, which could be partially or totally resolved through the environmental impact statement (EIS) process; need for plan amendment, exceptions, enforceability, flexibility, and identified problems. While these five issues are by no means the complete list of concerns identified during the public scoping process and comments on the draft EIS/plan amendment (DEIS), these issues did help guide the development of the alternatives.

Five alternatives to the No Action Alternative were developed based on input from the public and other agencies during the scoping process and comment period on the DEIS, along with BLM and FS management concerns. These six alternatives are discussed under the section Alternatives Considered in Detail.

MANAGEMENT COMMON TO ALL ALTERNATIVES

The following management guidance will continue, regardless of which alternative is selected, and is common to all alternatives.

There are six BLM OHV intensive use areas in Montana (4,210 acres) that would remain open to motorized wheeled cross-country travel under all the alternatives; South Hills area near Billings, Glendive OHV area near Glendive, Terry OHV area near Terry, Glasgow OHV area near Glasgow, Fresno OHV area near Havre, and Radersburg OHV area near Radersburg. In addition, there are some isolated BLM lands (5,500 acres) that would remain open. These isolated lands were addressed in the Elkhorn Mountains Travel Management Plan (1995). Also, the drawdown area (3,630 acres) around Lake Koocanusa on the Rexford District of the Kootenai National Forest would not be affected by any of the alternatives. The drawdown area is currently being addressed in the Rexford District Recreation Management Plan.

The BLM and FS regulations (43 CFR 8341.2 and 8364.1 and 36 CFR 295.2 and 295.5) allow for area, road or trail closures where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, threatened or endangered species, other authorized uses, or other resources. The authorized officer can immediately close the areas affected until the effects are eliminated and measures are implemented to prevent future recurrence.

Disabled access will be allowed per the Rehabilitation Act of 1973. Under the Act, an individual with a disability will not, solely by reason of her or his disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity conducted by the BLM or FS. Disabled access per the Rehabilitation Act is considered at the local level on a case-by-case basis. Motorized wheelchairs, as defined in the Rehabilitation Act, are not considered OHV's and therefore are not restricted by any of the alternatives.

The BLM and FS will consult in accordance with Section 7 of the Endangered Species Act (ESA) through the U.S. Fish and Wildlife Service (FWS) to ensure that any site-specific plan is not likely to jeopardize the continued existence of any species listed or proposed to be listed under the provisions of the ESA, or result in the destruction or adverse

modification of designated or proposed critical habitat. Access standards in effect for existing recovery plans will be followed in all site-specific plans. In addition, the authorized officer can immediately close areas, roads or trails if OHV use is causing or will cause considerable adverse environmental effects to species listed or proposed to be listed. Information on consultation for this final Environmental Impact Statement and proposed plan amendment (FEIS) is contained in Appendix C.

Under Alternatives 1-5, after the FEIS is completed the BLM and FS would continue to develop site-specific plans (i.e., landscape analysis, watershed plans, or activity plans) for geographical areas. Through site-specific planning, roads and trails would be inventoried, mapped, analyzed, and designated as open, seasonally open, or closed. In addition, site-specific planning could identify opportunities for trail construction and/or improvement, or specific areas where intensive OHV use may be appropriate. Implementation and monitoring are described in Appendix B. Implementation includes prioritizing areas for site-specific planning within six months of the respective agencies' Record of Decision based on the resources in the area, such as riparian areas and threatened or endangered species along with opportunities for recreational OHV use.

Definition of Motorized Wheeled Cross-Country Travel

It is difficult to provide one definition of motorized wheeled cross-country travel and have that definition fit all situations. Roads and trails appear differently on the landscape because of the great variety of terrain, vegetation, soil type, and climate in Montana, North Dakota and South Dakota.

This definition is not intended to supersede road and trail motorized vehicle restrictions already in place that regulate the type of vehicle or season of use.

Cross-country travel is wheeled motorized travel off roads and trails. The following examples further clarify this definition.

Motorized travel is considered cross-country when:

- the passage of motorized vehicles depresses undisturbed ground and crushes vegetation (Figure 2.1).

- the motorized vehicle maximum width (the distance from the outside of the left tire to the outside of the right tire or maximum tire width for motorcycles) does not easily fit the road or trail profile (Figures 2.2, 2.3, 2.4). However, an ATV traveling within a two-track route established by a pickup truck is not considered cross-country travel (Figure 2.5).

- motorized vehicles use livestock and game trails, unless the trails are clearly evident, continuous single-track routes used by motorcycles over a period of years (Figures 2.6, 2.7).

Motorized travel is <u>not</u> considered cross-country when:

- motorized vehicles use constructed roads and trails that are maintained by the agencies. Constructed roads and trails are often characterized by a road or trail prism with cut and fill slopes.

- motorized vehicles use clearly evident two-track and single-track routes with regular use and continuous passage of motorized vehicles over a period of years. A route is where perennial vegetation is devoid or scarce, or where wheel tracks are continuous depressions in the ground, evident to the casual observer, but are vegetated (Figure 2.8).

- motorized vehicles travel on frozen bodies of water. However, access to the body of water must come from existing land-based routes that meet the above specifications and lead to the water's edge.

- motorized vehicles travel over snow on a road or trail that meets the above specifications.

Routes must meet the above specifications for their continuous length. Routes newly created under wet conditions or in wetlands and riparian areas should be easily identified as not meeting the specifications because many portions of the route from its beginning to its terminus would not show signs of "regular and continuous passage of motorized vehicles" and many areas would still be fully vegetated with no wheel depressions.

This definition does have some ambiguity that will exist until designation of roads and trails in site-specific planning is completed. Designation of individual roads and trails would eliminate the ambiguity because any motorized use not on designated roads and trails would be prohibited.

Providing recreational opportunities and managing the resource values for the public to enjoy depends on the public's cooperation when recreating on OHV's. The following factors should be considered along with the definition when using public lands:

- Some routes would still be open that go through riparian areas and wetlands. These areas provide habitat for over 70% of our wildlife and aquatic species and should be avoided.

- Some routes are found on very steep slopes that provide a motorized challenge. However, this may cause serious erosion and gullying that can introduce sediment to streams and should be avoided.

- The spread of noxious weeds has become a serious threat to wildlife habitat and rangelands. Ensure that your vehicle's undercarriage and tires are not carrying weed seeds.

- Many forms of human use can stress or harass wildlife. Respect wildlife you may encounter and proceed with care.

- Cultural resources, such as old cabins, historic mining sites, fossil areas, and traditional cultural properties, are part of our heritage and are for your enjoyment through observation and learning. Leave for others to enjoy and be careful where you drive.

Figure 2.1 ATV traveling overland, off roads and trails, is considered cross-country travel.

Figure 2.2 Motorcycle traveling on single-track trail is not considered cross-country travel.

Figure 2.3 ATV traveling on single-track trail is considered cross-country travel.

Figure 2.4 Pickup truck traveling on ATV two-track trail is considered cross-country travel.

Figure 2.5 ATV traveling within a two-track road is not considered cross-country travel.

Figure 2.6 Motorized use on livestock trails is considered cross-country travel.

Figure 2.7 Livestock or game trail used by motorcycles for regular and continuous passage is not considered cross-country travel.

Figure 2.8 Existing routes have obvious wheel depressions in the ground from continuous travel but are vegetated. Travel on these routes is not considered cross-country travel.

ALTERNATIVES CONSIDERED IN DETAIL

This section describes the No Action Alternative and five other alternatives for management of OHV's on public lands. All alternatives comply with the Federal Land Policy and Management Act (FLPMA) of 1976 and the National Forest Management Act (NFMA) of 1976, and are subject to compliance with all valid statutes on BLM and NFS lands. Impacts of all resources are considered through the National Environmental Policy Act (NEPA) of 1969.

No Action Alternative (Current Management)

This alternative would continue current direction and is used as the baseline condition for comparing the other alternatives. The BLM and FS would continue to manage OHV's using existing direction and regulations. It addresses a number of issues and concerns, such as the proposal is too restrictive and effects on the ground do not warrant any change. It also addresses the concern that it is unrealistic to provide consistent management of OHV's across a three-state area due to wide variations of issues and problems that would necessitate decisions be made at the local level.

Areas currently open seasonally or yearlong to motorized wheeled cross-country travel would remain open (Table 2.1 and Map 1). The table and map reflect designations identified in existing forest plans and resource management plans.

Table 2.1 Affected Areas Open Seasonally or Yearlong to Motorized Wheeled Cross-Country Travel (Acres)

Agency	*Open Seasonally*	*Open Yearlong*	*Total*
BLM	887,000	4,954,000	5,841,000
FS	3,847,000	6,343,000	10,190,000
Total	4,734,000	11,297,000	16,031,000

Site-specific planning and enforcement of OHV regulations would occur at current levels.

Alternative 1

This is the most restrictive alternative for management of OHV's in that motorized wheeled cross-country travel would be prohibited with only a few exceptions for emergency and limited administrative purposes. This alternative was developed to address concerns that OHV use needed to be restricted quickly and was overdue because of resource impacts and user conflicts. Concerns addressed were to stop the expansion of problems associated with the spread of noxious weeds, user conflicts, wildlife harassment and habitat alteration, effects on vegetation, soils and aquatic resources, and further deterioration of FS Inventoried Roadless, Recommended Wilderness and Montana Wilderness Study Areas. Alternative 1 best meets the concern for consistency on OHV management between BLM and NFS lands and would be the most easily enforceable alternative because of consistency and few exceptions.

The BLM and FS would restrict motorized wheeled cross-country travel yearlong (Map 1). These lands, approximately 16 million acres, would be designated limited or restricted yearlong under BLM or FS regulations (43 CFR 8342 or 36 CFR 295). The appropriate forest plan and resource management plan would be amended by this alternative.

Motorized wheeled cross-country travel would be allowed for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.

Motorized wheeled cross-country travel for BLM and FS official administrative business would not be allowed without prior approval by the authorized officer (field manager or district ranger).

Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would not be allowed unless specifically authorized under the lease or permit.

Motorized wheeled cross-country travel would not be allowed for the retrieval of a big game animal.

Motorized wheeled cross-country travel would not be allowed for personal use permits such as firewood and Christmas tree cutting.

The following exception would apply unless currently restricted:

> Motorized wheeled cross-country travel for camping would be permissible within 50 feet of roads and trails by the most direct route after site selection by nonmotorized means. This exception does not apply where existing seasonal restrictions prohibit traveling off designated routes to a campsite.

Alternative 2

This alternative is based on the initial proposal and public comments received during scoping. It restricts motorized wheeled cross-country travel throughout the analysis area but allows some exceptions for relatively infrequent activities. Similar to Alternative 1, concerns addressed were to stop the expansion of problems associated with the spread of noxious weeds, user conflicts, wildlife harassment and habitat alteration, effects on vegetation, soils and aquatic resources, and further deterioration of FS Inventoried Roadless, Recommended Wilderness and Montana Wilderness Study Areas. It meets the concern that the agencies need to allow for some exceptions for motorized wheeled cross-country travel, such as game retrieval and camping. It provides almost the same ease of enforcement and consistency between the two agencies as Alternative 1.

The BLM and FS would restrict motorized wheeled cross-country travel yearlong (Map 1). These lands, approximately 16 million acres, would be designated limited or restricted yearlong under BLM or FS regulations (43 CFR 8342 or 36 CFR 295). The appropriate forest plan and resource management plan would be amended by this alternative.

Motorized wheeled cross-country travel would be allowed for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.

Motorized wheeled cross-country travel for BLM and FS official administrative business would be allowed.

Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would be allowed, unless specifically prohibited in the lease or permit. This would not change any existing terms or conditions in current leases or permits. However, this would not preclude modifying leases or permits to limit motorized wheeled cross-country travel based on further site-specific analysis.

Motorized wheeled cross-country travel for personal use permits, such as firewood and Christmas tree cutting, could be permitted at the local level (BLM field office or FS ranger district) at the discretion of the authorizing officer.

The following exceptions would apply unless currently restricted:

1. Motorized wheeled cross-country travel for camping would be permissible within 300 feet of roads and trails by the most direct route after site selection by nonmotorized means. This exception would not apply where existing seasonal restrictions prevent traveling off designated routes to a campsite.

2. Motorized wheeled cross-country travel by the most direct route to retrieve a big game animal in possession would be allowed only in the following field units in Montana: Miles City Field Office (FO), Billings FO, Malta FO, Lewistown FO with the exception of the Great Falls Field Station, and the Custer National Forest (NF) with the exception of the Beartooth Ranger District. Motorized wheeled cross-country travel in all other areas to retrieve a big game animal would not be allowed. Through subsequent site-specific planning big game retrieval could be restricted.

The following mitigation measures for the western prairie fringed orchid would apply:

1. Motorized wheeled cross-country travel for FS official administrative business would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval.

2. Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval.

Alternative 3

This alternative is based on the premise that the agencies should not restrict OHV use where problems are limited by steep terrain and dense vegetation or where existing regulations are adequate. Lands in the Flathead, Kootenai and Bitterroot National Forests in western Montana would not be affected by this alternative. Preliminary analysis indicated that even though significant amounts of federal land

were open to motorized wheeled cross-country travel in western Montana, current technology of OHV's generally has limited the expansion of user-created routes because of relative steepness and dense vegetation. Concerns for the need to restrict OHV's in the remainder of the analysis area are similar to Alternative 2. Concerns addressed were to stop the expansion of problems associated with the spread of noxious weeds, user conflicts, wildlife harassment and habitat alteration, effects on vegetation, soils and aquatic resources, and further deterioration of FS Inventoried Roadless, Recommended Wilderness and Montana Wilderness Study Areas. It meets the concern that the agencies need to allow some exceptions for motorized wheeled cross-country travel, such as game retrieval and camping.

The BLM and FS would prohibit motorized wheeled cross-country travel yearlong in the Miles City FO, Billings FO, Malta FO, Lewistown FO, Butte FO, Dillon FO, South Dakota FO, North Dakota FO, Beaverhead-Deerlodge NF, Custer NF, Dakota Prairie Grasslands, Gallatin NF, Helena NF, and the Lewis and Clark NF (Map 2). Approximately 12.5 million acres would be designated limited or restricted yearlong under the BLM or FS regulations (43 CFR 8342 or 36 CFR 295). The appropriate forest plan and resource management plan would be amended by this alternative.

Motorized wheeled cross-country travel would be allowed for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.

Motorized wheeled cross-country travel for BLM and FS official administrative business would be allowed.

Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would be allowed, unless specifically prohibited in the lease or permit. This would not change any existing terms or conditions in current leases or permits. However, this would not preclude modifying leases or permits to limit motorized wheeled cross-country travel based on further site-specific analysis.

Motorized wheeled cross-country travel for personal use permits, such as firewood and Christmas tree cutting, could be permitted at the local level (BLM field office or FS ranger district) at the discretion of the authorizing officer.

The following exceptions would apply unless currently restricted:

1. Motorized wheeled cross-country travel for camping would be permissible within 300 feet of roads and trails by the most direct route after site selection by nonmotorized means. This exception does not apply where existing seasonal restrictions prohibit traveling off designated routes to a campsite.
2. Motorized wheeled cross-country travel by the most direct route would be allowed from 10:00 a.m. until 2:00 p.m. to retrieve a big game animal that is in possession. Through subsequent site-specific planning big game retrieval could be restricted.

Alternative 4

This alternative restricts motorized wheeled cross-country travel seasonally to lessen impacts on resource values and to minimize user conflicts. Motorized wheeled cross-country travel would be restricted to times of the year when the ground is generally frozen (December 2 to February 15) or during dryer periods (June 15 to August 31) to reduce soil and vegetation impacts, aquatic resource damage, and to minimize user conflicts. No motorized wheeled cross-country travel would be allowed during big game hunting seasons in all three states, with the exception of game retrieval, to minimize user conflicts and wildlife harassment. Game retrieval would be allowed in all open areas of the analysis area. It meets the concern that the agencies need to allow some exceptions for motorized wheeled cross-country travel, such as game retrieval and camping. It provides almost the same ease of enforcement and consistency between the two agencies as Alternative 1 because the timing and exceptions are the same throughout the three-state area.

The BLM and FS would restrict motorized wheeled cross-country travel seasonally (Map 1). These areas would be open to motorized wheeled cross-country travel from June 15 to August 31 and from December 2 to February 15. These lands, approximately 16 million acres, would be designated limited or restricted seasonally under BLM or FS regulations (43 CFR 8342 or 36 CFR 295). The appropriate forest plan and resource management plan would be amended by this alternative.

Motorized wheeled cross-country travel would be allowed for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.

Motorized wheeled cross-country travel for BLM and FS official administrative business would be allowed.

Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would be allowed, unless specifically prohibited in the lease or permit. This would not change any existing terms or conditions in current leases or permits. However, this would not preclude modifying leases or permits to limit motorized wheeled cross-country travel based on further site-specific analysis.

Motorized wheeled cross-country travel for personal use permits, such as firewood and Christmas tree cutting, could

be permitted at the local level (BLM field office or FS ranger district) at the discretion of the authorizing officer.

The following exceptions would apply unless currently restricted:

1. Motorized wheeled cross-country travel for camping would be permissible within 300 feet of roads and trails by the most direct route after site selection by nonmotorized means. This exception does not apply where existing seasonal restrictions prohibit traveling off designated routes to a campsite.

2. Motorized wheeled cross-country travel by the most direct route would be allowed to retrieve a big game animal that is in possession. Through subsequent site-specific planning big game retrieval could be restricted.

Alternative 5 (Preferred Alternative)

This alternative was developed in response to comments on the DEIS from the public and other agencies. It restricts motorized wheeled cross-country travel throughout the analysis area to protect riparian areas, wetlands, crucial wildlife habitat, threatened or endangered species, soils and vegetation, aquatic resources, and to reduce user conflicts. The alternative addresses the concern that the agencies need to allow an exception for camping, but includes specific limitations on that exception. This alternative would limit travel for administrative use by the BLM and FS, other government entities, and lessees and permittees, but would allow motorized wheeled cross-country travel when necessary.

The BLM and FS would restrict motorized wheeled cross-country travel yearlong (Map 1). These lands, approximately 16 million acres, would be designated limited or restricted yearlong for motorized wheeled cross-country travel under BLM or FS regulations (43 CFR 8342 or 36 CFR 295). The appropriate forest plan and resource management plan would be amended by this alternative.

Through subsequent site-specific planning, the BLM and FS would designate roads and trails for motorized use. With public involvement the agencies would continue with ongoing travel management plans and develop new travel management plans (i.e., landscape analysis, watershed plans, or activity plans) for geographical areas. Through site-specific planning, roads and trails would be inventoried, mapped, and analyzed to the degree necessary to evaluate and designate the roads and trails as open, seasonally open, or closed. The inventory would be commensurate with the analysis needs, issues, and desired resource conditions based on forest plan or resource management plan objectives for the analysis area.

Site-specific planning could include identifying opportunities for trail construction and/or improvement, or specific areas where intensive OHV use may be appropriate. A change in area designations from limited/restricted to open would require a plan amendment. Implementation and monitoring are described in Appendix B. Implementation includes prioritizing areas for site-specific planning within six months of the respective agencies' Record of Decision based on the resources in the area, such as riparian areas and threatened or endangered species, along with opportunities for recreational OHV use.

The agencies recognize there are some valid needs for motorized wheeled cross-country travel. However, when driving cross-country individuals should avoid riparian areas, avoid steep slopes, wash vehicles after use in weed-infested areas, travel with care near wildlife, avoid areas with important wildlife habitat, and travel with care near cultural sites. Restrictions in riparian areas, areas with steep slopes, important wildlife habitat areas, etc. are addressed through the BLM and FS normal permitting and leasing process based on existing management plans and best management practices. The following outlines the varied needs for motorized wheeled cross-country travel.

Motorized wheeled cross-country travel would be allowed for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.

Motorized wheeled cross-country travel for the BLM and FS would be limited to official administrative business as outlined by internal memo (see Appendix D). Examples of administrative use would be prescribed fire, noxious weed control, revegetation, and surveying. Where possible, agency personnel performing administrative functions would locate a sign or notice in the area they are working to identify for the public the function they are authorized to perform.

Motorized wheeled cross-country travel for other government entities on official administrative business would require authorization from the local field manager or district ranger in their respective areas. This authorization would be through normal permitting processes and/or memoranda of understanding. Some examples of other agency administrative use would be noxious weed control, surveying, and animal damage control efforts. Where possible, the authorized party performing administrative functions would locate a sign or notice in the area they are working to identify for the public the function they are authorized to perform.

Motorized wheeled cross-country travel for lessees and permittees would be limited to the administration of a federal lease or permit. Persons or corporations having such a permit or lease could perform administrative functions on

public lands within the scope of the permit or lease. However, this would not preclude modifying permits or leases to limit motorized wheeled cross-country travel during further site-specific analysis to meet resource management objectives or standards and guidelines. Some examples of administrative functions include, but are not limited to:

- Gas or electric utilities monitoring a utility corridor for safety conditions or normal maintenance,
- Accessing a remote communication site for normal maintenance or repair,
- Livestock permittees checking vegetative conditions, building or maintaining fences, delivering salt and supplements, moving livestock, checking wells or pipelines as part of the implementation of a grazing permit or lease, and
- Scientific groups under contract for resource assessments or research.

Motorized wheeled cross-country travel for personal use permits, such as firewood and Christmas tree cutting, could be allowed at the local level (BLM field office or FS ranger district) in specific areas identified for such use. In all other areas, motorized wheeled cross-country travel associated with personal use permits would not be allowed.

Motorized wheeled cross-country travel for big game retrieval would not be allowed. The retrieval of a big game animal that is in possession (i.e. tagged), would be allowed on roads and trails unless currently restricted. Through subsequent site-specific planning, options for big game retrieval could be considered. For example, big game retrieval could be allowed from 10 a.m. to 2 p.m. daily on restricted roads or trails. This big game retrieval requirement would also apply to the BLM's Big Dry and Judith-Valley-Phillips Resource Management Plans where motorized wheeled cross-country travel is currently allowed for big game retrieval.

The following exception would apply unless currently restricted:

> Motorized wheeled cross-country travel to a campsite would be permissible within 300 feet of roads and trails. Site selection must be completed by nonmotorized means and accessed by the most direct route causing the least damage. This exception does not apply where existing seasonal restrictions prohibit traveling off designated routes to a campsite. Existing local rules take precedence over this exception. This distance could be modified through subsequent site-specific planning.

The following mitigation measures for the western prairie fringed orchid would apply:

1. Motorized wheeled cross-country travel for FS official administrative business would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.
2. Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.

SELECTION OF THE PREFERRED ALTERNATIVE

The alternatives were reviewed for effectiveness in resolving the planning issues, conformance with the guidance established by the planning criteria, avoidance of unnecessary impacts to the human environment, responsiveness to public concern, and compliance with BLM and FS statutory authority and Executive Orders 11644 and 11989. Based on those reviews, Alternative 5 is the Preferred Alternative and proposed plan amendment.

Alternative 5 was selected because it would minimize further resource damage, user conflicts and related problems, including new user-created roads, associated with motorized wheeled cross-country travel on 16 million acres of BLM and NFS lands and would provide management direction for subsequent site-specific planning to address motorized use on individual roads and trails.

Alternative 5 would not allow motorized wheeled cross-country travel for big game retrieval, although use of roads and trails to retrieve big game could continue. This game retrieval restriction would: reduce the conflicts between motorized and nonmotorized users during the hunting season; reduce the potential for introducing invasive weeds; reduce the potential for soil erosion; reduce the potential for impacts to wildlife; be more responsive to numerous public concerns that were expressed about the inappropriateness of allowing an exception for game retrieval; and be consistent with the long-term goal of using vehicles on designated routes.

Alternative 5 would maintain efficient and effective management of the public's resources by allowing limited motorized wheeled cross-country travel for management of the resources by agency personnel, permittees, lessees, and other government entities while conducting needed work.

This work would be conducted in a controlled manner, according to permit requirements, to mitigate potential adverse effects. Example requirements include the cleaning of equipment to avoid spreading invasive weeds, avoidance of threatened or endangered species habitat, timing restrictions, etc.

Alternative 5 would allow cross-country travel for military, fire, search and rescue, and law enforcement for emergency purposes consistent with BLM and FS regulations (43 CFR 8340.0-5 and 36 CFR 295.2).

Alternative 5 would allow for dispersed camping within 300 feet of a road or trail provided recreationists use the most direct route and select their site by nonmotorized means. This would allow people to move away from the dust and noise generated on the road. Agency recreation specialists expect relatively little use of this exception, as most popular dispersed campsites already have a road accessing them.

Alternative 5 would provide specific mitigation measures consistent with the Endangered Species Act for the threatened western prairie fringed orchid in known habitat on the Sheyenne National Grassland.

COMPARISON OF ALTERNATIVES

Table S.1 presents a summary of the alternatives described in Chapter 2, and Table S.2 summarizes the environmental consequences described in Chapter 3 for each of the alternatives. These tables are located in the Summary section of this FEIS. The reader is referred to Chapter 3 for specific information about the effects of each of the alternatives.

ALTERNATIVES ELIMINATED FROM DETAILED STUDY

The following alternatives were eliminated from detailed study because they did not meet the purpose and need of the proposal and/or due to technical, legal, or other constraints.

Forest Development Roads and Trails and BLM Designated Routes

An alternative to restrict OHV's to forest development roads and trails and BLM designated routes was eliminated from detailed study because it did not meet the purpose and need of this proposal.

As discussed in Chapter 1, two decision levels are necessary to achieve the long-term goal of designated roads and trails. One level is a programmatic amendment to forest plans and resource management plans to change the designation of 16 million acres from open seasonally or yearlong to limited/restricted yearlong. This would protect the entire analysis area from further damage caused by motorized wheeled cross-country travel. The second level is to designate which individual roads and trails would be open, limited/restricted, or closed to motorized use consistent with the forest plan or resource management plan. This level, commonly referred to as site-specific planning, requires relatively detailed information about the location, condition and current uses of individual roads and trails. On occasion, decisions at both levels are completed simultaneously, generally on relatively small areas as compared to this FEIS.

The purpose of this FEIS is to accomplish the first level of planning to protect these areas from further damage in a timely manner. It also provides direction for completing the second level of planning. This alternative was eliminated from detailed study because it focused on completing the second level of designation, i.e. individual road and trail use, simultaneously with the change in area designations to limited/restricted. The Regional Forester and State Director determined that the second level, site-specific road and trail designations, would take many years to accomplish on all 16 million acres. The focus on road and trail designation precludes meeting in a timely manner the purpose and need of preventing further resource damage, user conflicts and related problems by motorized wheeled vehicles traveling cross-country. To meet the purpose and need of this proposal, the decision must be timely and the level of analysis should be commensurate with a broad-level programmatic document. The agencies do not want to delay the completion of the first level of planning and decided to keep the two decision levels separate.

In comments on the DEIS some people suggested there didn't need to be any site-specific planning because the FS has a designated system (forest development roads and trails), the BLM has existing recreation maps, and user-created roads and trails are illegal.

In areas that allow motorized cross-country travel, the creation of roads and trails has occurred through casual use. Roads and trails created by casual use are not illegal and the public's use of motorized vehicles in areas that allow cross-country travel is consistent with the forest plan or resource management plan.

As described in Chapter 1, there is an extensive network of roads, many authorized by the agencies that are not part of the forest development road system as well as user-created roads. The FS has recently developed a new policy and guidance to deal with this mixture of classified and unclassified roads (36 CFR 212). It directs the national forests and

grasslands to resolve the differences in classified and unclassified roads through inventory, analysis and planning at various scales and is best addressed at the site-specific level.

With the increase of OHV's in the last 10 years, the agencies recognize that the miles of user-created roads and trails have increased. The agencies also recognize that not all user-created roads and trails are causing resource problems. Only site-specific planning would enable the agencies to determine the suitability, capability, and appropriate mix of users (motorized, pedestrian, horse riders, bicyclists, etc.) on individual roads and trails to meet recreation and other concerns for a watershed or mountain range.

The detailed study of an alternative that would restrict OHV's to forest development roads and trails and BLM designated routes is better done at the local level through site-specific planning with an inventory, public involvement, and integration of other resource objectives and other types of recreational use. In order to insure that site-specific planning is completed on the most critical areas, a method of prioritizing site-specific planning activities and a monitoring plan are described in Appendix B.

Snowmobiles

An alternative to include snowmobile use in the proposal was eliminated from detailed study because the issues involving snowmobile access are different enough to potentially warrant a separate analysis.

This proposal addresses motorized wheeled vehicles such as motorcycles, ATV's, four-wheel drive vehicles, etc. Addressing snowmobile use in this proposal would complicate and lengthen the EIS process significantly. Since snowmobiles are usually driven on a layer of snow, their environmental effects are different than those of motorized wheeled vehicles (i.e. erosion, sedimentation, weed spread), which come into direct contact with the ground. User conflicts associated with snowmobiles are also different than those with motorized wheeled vehicles.

Site-Specific Alternatives

Several other alternatives, such as identifying additional intensive use areas, establishing areas on a rotating basis, leaving areas open near larger urban areas, addressing hiking, horseback riding and mountain biking, and restricting roads and trails based on the width, horsepower, or weight of vehicles, were eliminated from detailed study because these alternatives are not within the scope of this programmatic document and do not meet the purpose and need.

Like the forest development roads and trails and the BLM designated route alternative, these alternatives would not meet the purpose and need to protect 16 million acres from further resource damage, user conflicts, and related problems by motorized wheeled cross-country travel.

Through site-specific planning, specific areas where motorized wheeled cross-country travel is appropriate or OHV intensive use areas could be identified and designated. Also through site-specific planning, issues involving other uses on roads and trails (hiking, horseback riding, mountain biking) could be addressed and specific limitations for roads and trails (width or vehicle weight) could be identified.

Block Management

An alternative to address the Montana Fish, Wildlife and Parks block management program in the proposal was eliminated from detailed study because the block management program is not within the discretion or authority of the BLM or FS.

Block management is a cooperative program between private landowners and Montana Fish, Wildlife and Parks that provides the public with hunting access to private land and, sometimes, to adjacent or isolated public lands. Block management addresses fall hunting only.

Restrict Areas Greater than 5,000 Acres and Close All Areas to Off-Highway Vehicle Use

An alternative to restrict OHV's to small, isolated tracts of less than 5,000 acres and another alternative to close all areas to OHV's, including all roads and trails, were eliminated from detailed study because the BLM and FS recognize in their respective resource management plans and forest plans, policy, and manual direction, that OHV use is a valid recreational activity. Resource conditions, including vegetation, watershed, and wildlife habitat, do not warrant prohibition of vehicle travel on all public lands, including all roads and trails, to meet the purpose and need of this proposal.

Closed Unless Posted Open

An alternative to close areas and post only the roads and trails open to motorized travel was eliminated from detailed study because it did not meet the purpose and need of this proposal, which are to prevent further resource damage, user conflicts, and related problems associated with motorized wheeled cross-country travel in a timely manner until site-specific planning is completed.

This alternative specifies the method of designating routes. Like the forest development roads and trails and BLM designated routes alternative, this alternative could not be completed in a timely manner to provide interim direction. Site-specific planning would address OHV use on specific roads and trails. Through site-specific planning, roads and trails would be inventoried, mapped, and designated as open, seasonally open, or closed. Specific signing of designated roads and trails would be done under site-specific planning.

Montana State Lands Policy

One alternative was based on the State of Montana rules for recreational use of state lands. "Motorized vehicle use by recreationists on state lands is restricted to federal, state, and dedicated county roads and to those roads designated by the department to be open to motorized vehicle use." (77-1-804(6), Montana Code Annotated). Motorized cross-country driving is prohibited.

This alternative was eliminated from detailed study because the alternatives developed and addressed in this FEIS would restrict motorized wheeled cross-country travel similar to Montana rules. The designation of roads and trails as open, seasonally open, or closed to motorized vehicle use would be accomplished through site-specific planning as discussed above in the section "Forest Development Roads and Trails and BLM Designated Routes" and under "Management Common To All Alternatives." Under all the action alternatives (Alternatives 1-5), the BLM and FS would restrict motorized wheeled cross-country travel year-long, and through subsequent site-specific planning the BLM and FS would designate roads and trails for motorized use. Designation of specific roads and trails is a significant undertaking and cannot be done in the interim in a timely fashion. The purpose and need of this FEIS is to protect the environment by minimizing further resource damage, user conflicts, and related problems associated with motorized wheeled cross-country travel until site-specific planning is completed.

CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter describes the affected environment for each resource, followed by environmental consequences for each of the alternatives evaluated in detail. The affected environment discussion describes the social and economic, biological and physical conditions of the analysis area. The intent is to characterize the current condition of each resource. The environmental consequences then address the direct, indirect, and cumulative impacts on the environment by each alternative. This chapter provides the scientific and analytic basis for the comparison of alternatives presented in Chapter 2.

The level of detail in this chapter includes information necessary to support and clarify the impact analysis and understand the effects of the alternatives. Descriptions of the existing environments and environmental effects by alternative were developed from reports prepared by resource specialists from the Forest Service (FS) and Bureau of Land Management (BLM). Additional information can be found in the OHV project file.

ENVIRONMENTAL SETTING OF THE ANALYSIS AREA

The analysis area includes BLM and FS Northern Region administered lands in Montana, North Dakota and portions of South Dakota. The environmental setting of the analysis area can be described in three ecological regions: Rocky Mountain Region, Great Plains Region, and North American Prairie Region (Bailey 1995) (Figure 3.1).

The Rocky Mountain Region covers the mountainous area of western and portions of central Montana and is generally characterized by steep, rugged mountains separated by flat valley bottoms. These mountains consist of highly folded, faulted, intruded and uplifted sedimentary strata. The rocks that form these mountains are tens of millions to billions of years old. Formation of the Rocky Mountains began around 60 million years ago as the Mesozoic Era ended. By the early Eocene, 20 million years later, the crustal disturbances forming the mountains relaxed and mountain building ended.

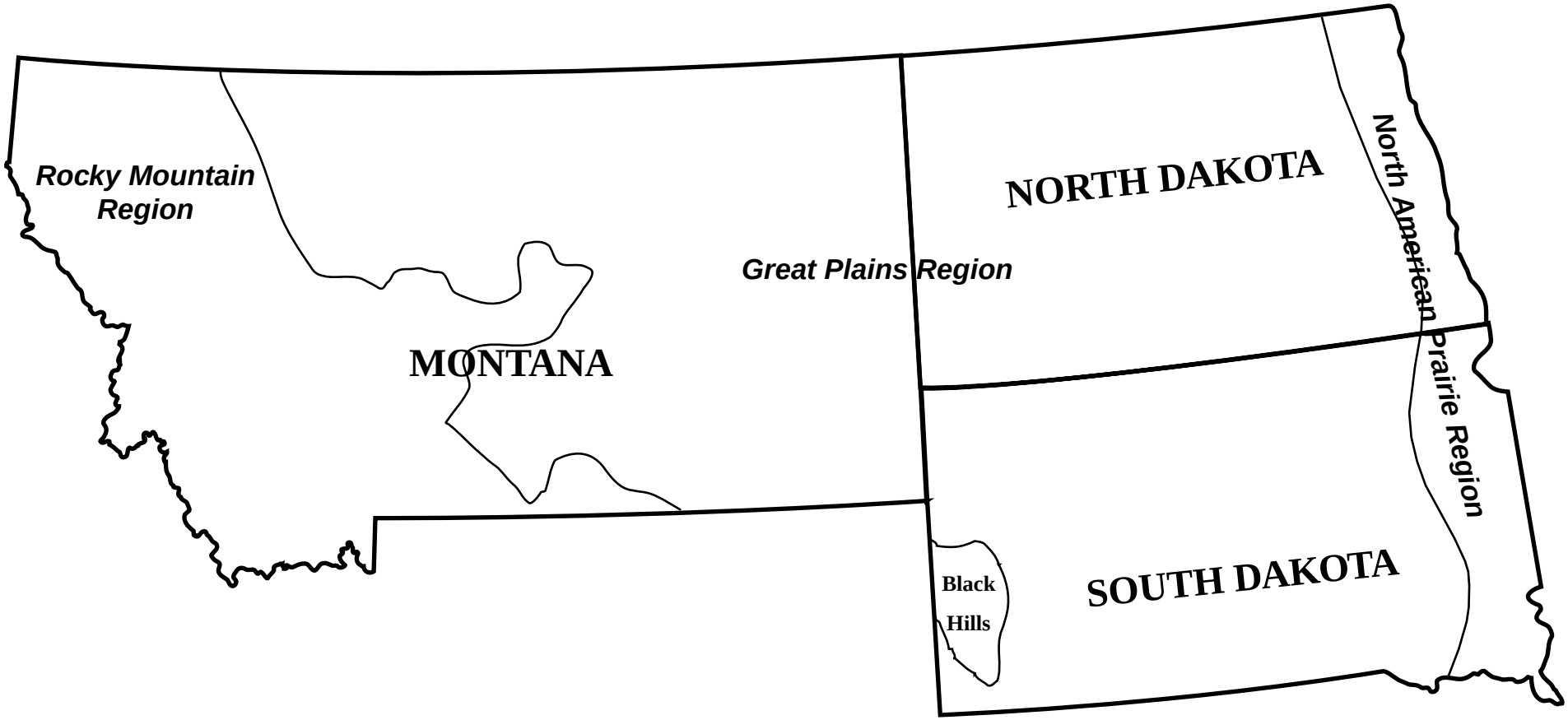
Currently, the mountains are covered by conifer forests with grassland foothills. The forest types vary considerably, ranging from dry ponderosa pine to moist western red cedar to cool spruce/fir types. Lodgepole pine and Douglas-fir dominated forests are common in this region. Elevation in this region ranges from 2,000 feet to greater than 11,000 feet. Geologically, this area is diverse with bedrock that is igneous or sedimentary in origin. Soils have developed in place or have resulted from volcanic ash eruptions such as from Mount Mazama. Climatically, the area has relatively cold winters with substantial amounts of precipitation coming in the form of snow with some rain in the spring and fall. Summers are typically dry. Annual precipitation ranges from 15 to 25 inches in the valleys and up to 100 inches in the mountains.

In marked contrast, the **Great Plains Region** is characterized by relatively gentle topography, rolling plains and tablelands with an important exception of areas referred to as “badlands.” The relatively low relief indicates flatlying bedrock. Horizontally bedded, undeformed, sedimentary strata underlie this region. Although the age of the underlying strata is comparable to that of the Rocky Mountain Region, only the youngest strata are visible at the surface. This region covers most of North Dakota, South Dakota, eastern Montana, and portions of central Montana.

The climate is semiarid with cold, dry winters and warm to hot and dry summers. Overall, annual precipitation ranges from 10 to 20 inches. The vegetation is short and mixed grass prairie, comprised of various species of grasses, forbs, cacti, sagebrush and rabbitbrush and a scattering of scrub trees in some areas. There is often bare soil between the plants.

The North American Prairie Region covers the very eastern edges of North Dakota and South Dakota. It has little topographical relief and ranges from 1,000 to 2,000 feet in elevation. Flat and rolling plains from glacial drifts and outwash plains characterize this region. The annual precipitation is 20 to 40 inches, with most of it coming during the growing season, thus drought is uncommon. Grasses dominate the vegetation, although deciduous forests will invade where grazing and fire have been excluded.

FIGURE 3.1
Ecological Regions



VISUALS AND RECREATION

AFFECTED ENVIRONMENT

Landscape Character

The three-state area includes three regional landscape character types: Rocky Mountains, Great Plains, and North American Prairie. General landscape characteristics of each region have been described earlier in this chapter. Boundaries between adjoining regions are often an expression of transition from one set of visual characteristics to another rather than a distinctive change. These broad character types are descriptive of the entire landscape regardless of ownership.

Rocky Mountain Region: Visually, in this region there is a strong interplay of texture and color created by the mosaic of trees, shrubs, grasses, stringers of meadows along stream courses within the forests, and stringers of trees or shrubs in the grasslands. The degree to which people have modified the natural landscape on public lands varies from undeveloped wildlands to those heavily influenced by logging and mining. Broad valleys are usually in private ownership with farming and ranching creating a pastoral appearance. The overall image of the Rocky Mountain Region is variety in the landscape.

BLM and National Forest System (NFS) lands in the Rocky Mountain Region have an extensive network of roads and trails. Many were designed and constructed by the FS and BLM, but some were also created by users (ranchers, miners, hunters, loggers, and others) over the past one hundred years. Because of forest vegetation and topography, most of the user-created roads and trails are most evident in the foreground viewing areas.

Great Plains Region: Commonly, landscapes in the Great Plains Region provide the viewer with a sense of little or no boundary restriction. Visually contrasting with the natural setting, cultivated grain and fallow fields and narrow irrigated strips in incised valleys are additional pastoral features found on private lands in this region. This type of landscape does not lend itself well for visually absorbing human modifications, such as roads that contrast with the natural appearing landscape. Eastern Montana, North Dakota and South Dakota BLM and NFS lands have an extensive road network consisting of designed and constructed routes and two-track roads or prairie trails. Some of the two-track roads and trails have been around for more than a hundred years, while others are more recent. Many were created by motorized wheeled cross-country travel and few, if any, were designed to blend with the landscape. Some routes travel up steep slopes or follow ridgelines, adding unnatural lines and highly contrasting colors to the landscape. The agencies do not have adequate data to determine the miles of new roads created each year or the miles of roads known as prairie trails.

North American Prairie Region: Extending from Texas to Alberta, the North American Prairie Region covers the mid and eastern portions of North Dakota and South Dakota. Much of the private land in this landscape has been cultivated for agriculture. Public lands are generally not cultivated, though many acres are grazed by cattle. This region contains the Sheyenne National Grassland (now part of the Dakota Prairie Grasslands). There are no BLM lands in this region.

Visual Quality

Current FS forest plans use the Visual Management System for assessing visual effects. Visual Quality Objectives (VQO's) are a measure of how natural a landscape appears, or would appear, under various management scenarios (USDA 1973 and 1974). Human alterations can sometimes raise or maintain visual quality within the landscape character, but more often it is lowered, depending on the deviation from the natural appearing features of the character. The existing visual condition of national forests and grasslands presently varies from unaltered to heavily altered and meets VQO's of Preservation to Maximum Modification, depending on past development and use, and on the degree and type of management direction for Management Areas identified in the various forest plans. In forested areas, roads, timber harvest, mining, and winter sports sites have the most influence on visual quality. In grasslands, roads, recreation developments, fences, mining development and facilities, electronic sites and trails have the most influence on visual quality. Many of these same influences apply to lands above the timberline.

The BLM uses a slightly different system for classifying and managing scenery. BLM management objectives vary from Class I, preservation of the characteristic landscape, to Class IV, which allows for major modification of the landscape (BLM Manual Handbook 8410-1 1986). All four classes are found on public lands in the analysis area. Some of the most visually sensitive of these lands are within view of major travel corridors, such as highways and county roads. Depending upon location, user-created roads and trails sometimes do not meet management objectives due to the difficulty of the Great Plains landscape in absorbing human impacts.

Recreation

Outdoor recreation, which includes motorized use, is one of the purposes for which public lands managed by the FS and

the BLM are administered. Motorized recreation, where appropriate, is a legitimate activity on public lands. Executive Order (EO)11644 (1972) Use of Off-Road Vehicles on Public Lands, as amended by EO 11989 (1977) Off-Road Vehicles on the Public Lands, gives direction on providing motorized opportunities while protecting resources, promoting safety, and minimizing conflicts with other users. At the time the Executive Orders were issued, motorized wheeled cross-country travel was not as prevalent as it is today, and many public lands were left open and unrestricted. Presently there are 5.8 million acres open seasonally or yearlong to motorized wheeled cross-country travel on BLM lands and 10.1 million acres open on NFS lands within the analysis area. With the surge in motorized use over the past decade, the effects of motorized wheeled cross-country travel are more apparent and causing concern expressed by many public land users.

Contributing to the boom in off-highway vehicle (OHV) use since the completion of forest plans and resource management plans are the advancements in OHV technology and the rise in popularity of all-terrain vehicles (ATV's). In the past 10 years the popularity of OHV's continues to increase, and with it the associated conflicts. Contributing to the problem are the large areas of public lands that are still classified as open (no restrictions for motorized wheeled cross-country use) or that only have seasonal restrictions.

Recreation conflicts occur when participation in one recreation activity reduces the recreation experience of another user. Recreation conflicts resulting from motorized wheeled cross-country travel take several forms. Conflicts are usually between the motorized and nonmotorized recreationists. In areas that are open to motorized wheeled cross-country travel during the hunting season, the conflict is between motorized hunters who travel cross-country to scout for game, access favorite hunting areas, drive or chase game for a better shot and to retrieve game, and nonmotorized hunters whose method of accessing, scouting, stalking, and retrieving are by foot or horse. Part of the conflict is the noise created by motorized vehicles that may disturb game animals and displace them from the immediate area. Motorized wheeled cross-country travel on public lands can also push big game animals onto adjacent private lands that are posted and off limits to the general public.

Most nonmotorized recreationists are usually seeking quiet-type recreation experiences and feel the noise, exhaust fumes, and wheel tracks left behind from motorized wheeled cross-country travel conflict with and reduce the quiet, more primitive recreation experience they are seeking.

Many motorized recreationists who stay on roads and trails feel that those who travel cross-country on motorized vehicles are not practicing good land ethics (Tread Lightly! principles, Appendix E) and give the entire group of motorized recreationists a bad name.

Settings

NFS lands are mostly large blocks of public lands with reasonable public access. Private lands and other state and federal ownerships are often intermingled within these blocks of public land. BLM lands, on the other hand, are very often widely scattered tracts separated by great distances. Some larger blocks of BLM lands do occur. Motorized access to BLM lands is often limited by surrounding private lands, rather than by a lack of roads or trails. Some recreationists drive cross-country to avoid private land if there are no fences and the terrain permits. The BLM estimates that most motorized use in eastern Montana, North Dakota and South Dakota occurs on roads and trails, rather than cross-country. Based on field observations, new two-track roads are formed as more private lands adjacent to BLM lands are closed to the public.

NFS and BLM lands provide very diverse recreation settings. Differences in landform, climate, and elevation create physical settings that include open rolling grasslands, badlands, plateaus and tablelands, grass/shrublands, open timber/grass foothills, floodplains and riparian areas, wetlands, luxuriant dense forests, craggy mountains, narrow to broad valleys, glaciated cirque basins, and high mountain lakes. Settings vary from urbanized environments to large, unmodified areas.

Social settings reflect the amount and frequency of contact between individuals and groups. Social settings on public lands are varied; recreationists may find solitude in areas where there are few other people or where they may encounter large numbers of people in heavily used or concentrated use areas. Encounters with others vary depending on the season of use, the attractiveness of the area, the proximity to population centers, and the particular recreation activity.

Road and trail densities on public lands that are open seasonally or yearlong to motorized wheeled cross-country travel vary. For example, the Whitetail-Pipestone area, a popular area for riding OHV's on BLM and NFS lands near Butte, Montana, contains 800 miles of roads and trails over a 275,000-acre area. A study being conducted on this area shows a road and trail density that varies from less than .5 miles per square mile in undeveloped areas to over 4 miles per square mile in the more heavily accessed areas (USDA 1999c). This is representative of road and trail densities on affected public lands in southwestern and central Montana. In northwestern Montana where areas have been heavily accessed for timber harvest, road densities are often greater, but some of these roads are not available for motorized

travel. On BLM lands in the three-state area, recreationists are usually not more than a mile or two from a road or trail. However, this does not necessarily mean the public has legal access to these roads and trails because some originate from or cross adjacent private lands.

The actual number of roads and trails on NFS and BLM lands is unknown, but records and observations indicate there are thousands of miles of roads and trails on the affected lands. Almost all site-specific recreation attractions (e.g., dispersed camping spots and historic mining areas) have roads or trails leading to them.

Off-road motorized travel is not allowed in any BLM Wilderness Study Area. While motorized wheeled cross-country travel is not allowed within most national forest and grassland Forest Plan Recommended Wilderness Areas and Montana Wilderness Study Areas, there are portions of these areas where motorized wheeled cross-country travel is presently allowed. These are covered in more detail in the Inventoried Roadless, Forest Plan Recommended Wilderness, and Wilderness Study section of this chapter.

Recreation settings contain a managerial component, such as regulations and restrictions that influence how and when public lands are accessed, used, and what type of activities take place. Regulations and restrictions vary across public lands. Regulations require that all FS and BLM areas and trails must be classed as prohibited/closed, restricted/limited, or allowed/open to off-road motorized vehicle use (36CFR 295 and 43CFR 8342).

Settings are influenced by restrictions that are placed on the land. OHV restrictions fall under several categories. On NFS and BLM lands there are open areas that include areas open yearlong to motorized use with no restrictions and BLM intensive use areas. There are six BLM intensive use areas in Montana (4,210 acres): South Hills area near Billings, Glendive OHV area near Glendive, Terry OHV area near Terry, Glasgow OHV area near Glasgow, Fresno OHV area near Havre, and Radersburg OHV area near Radersburg. The BLM intensive use areas have already gone through an analysis that determined motorized wheeled cross-country travel is an appropriate use. They have been designated for intensive motorized recreation use and are not part of the alternatives in this final Environmental Impact Statement and proposed plan amendment (FEIS). In addition, there are some isolated BLM lands (5,500 acres) that would remain open. These isolated lands were addressed in the Elkhorn Mountains Travel Management Plan (1995) and are not part of the affected environment. Also, the drawdown area (3,630 acres) around Lake Koocanusa on the Rexford District of the Kootenai National Forest would not be affected by any of the alternatives. The drawdown area is currently being addressed in the Rexford District Recreation Management Plan. The other areas that are open yearlong are included in the alternatives for this FEIS (11.2 million acres). Areas that are limited (BLM) or restricted (FS) include areas that have seasonal closures to motorized wheeled cross-country travel (4.7 million acres) and areas that are closed yearlong but have open roads and trails within them (5.6 million acres). The latter is often referred to as an area closure with designated routes and is not part of the affected environment. The areas with seasonal restrictions are included in the alternatives for this FEIS (4.7 million acres). Finally, there are closed areas that are entirely closed to motorized wheeled cross-country travel yearlong (5 million acres). These areas are also not part of any alternatives in this FEIS. See Table 3.1 for more details.

Over much of Montana, enforcement of travel regulations on BLM and NFS lands is done in a cooperative fashion between the BLM, FS, and Montana Fish, Wildlife and Parks Wardens. The State of Montana has incorporated federal travel restrictions into state law, which allows the Wardens to enforce travel restrictions on NFS and BLM lands. There are no similar agreements in North Dakota and South Dakota.

Off-Highway Vehicle Activities

Recreation activities include pursuits such as hunting, fishing, trapping, camping, picnicking, rock hounding, gathering products such as firewood and plants, viewing scenery and wildlife, hiking, cross-country skiing, nature study, and riding ATV's, motorcycles, and other full size trucks and vehicles for pleasure. Participation in recreation activities varies by season, topography, vegetative cover, and number of people taking part.

Several Montana studies have been conducted that give indications of motorized recreation activity participation. In 1993 and 1994, the Institute for Tourism and Recreation Research conducted a study of Montana that examined the rates of participation in eleven recreation activities (McCool and Harris 1994). In the six months preceding their survey, the study estimated that adult Montanans in the study participated in the following off-highway motorized recreation activities at the following rates: 9.1% motorcycle, 11.8% ATV, and 19.6% four-wheel drive road vehicle. In 1997, Montana Fish, Wildlife and Parks conducted a random telephone survey of Montanans that included participation in recreation activities (Montana Fish, Wildlife and Parks 1997). The survey respondents reported using trails within the two years preceding the survey for off-road recreation activities at the following rates: 2% motorcycle, 2% ATV, and 2% four-wheel drive road vehicle. While these studies do show different results, they are an indication that motorized recreation use by Montanans may be as

Table 3.1 OHV Designations Table - Acres by BLM Field Office and National Forest/Grassland

BLM Field Office	*Open Seasonally*	*Open Yearlong*	*Designated Intensive Use*	*Limited Yearlong*	*Closed Yearlong*	*Total*
Miles City	631	1,069,114	2,320	1,626,989	80	2,699,134
Billings	80,000	236,796	1,270	101,480	6,940	426,486
Malta	328,720	1,665,610	40	110,206	0	2,104,576
Lewistown	375,874	778,516	80	214,294	23,620	1,392,384
Missoula	0	0	0	162,400	572	162,972
Butte	0	187,200	500	115,600	8,000	311,300
Dillon	79,560	712,460	0	117,314	58,774	968,108
South Dakota	0	273,972	0	0	6,700	280,672
North Dakota	22,164	35,603	0	0	1,990	59,757
Total	886,949	4,959,271	4,210	2,448,283	106,676	8,405,389
National Forest/ Grassland	*Open Seasonally*	*Open Yearlong*	*Designated Intensive Use*	*Restsricted Yearlong*	*Closed Yearlong*	*Total*
Beaverhead-Deerlodge	602,269	1,318,883	0	792,113	639,007	3,352,272
Bitterroot*	102,298	693,566	0	38,380	282,838	1,117,082
Custer	267,593	490,489	0	45,324	383,737	1,187,143
Dakota Prairie	0	1,259,947	0	0	0	1,259,947
Flathead	53,026	1,157,862	0	147,593	994,568	2,353,049
Gallatin	5,773	773,856	0	9,927	1,011,070	1,800,626
Helena	78,341	493,108	0	198,301	205,663	975,413
Kootenai*	1,404,053	146,534	0	127,066	542,526	2,220,179
Lewis & Clark	1,334,107	12,621	0	129,213	386,348	1,862,289
Lolo	0	0	0	1,711,331	371,000	2,082,331
Total	3,847,460	6,346,866	0	3,199,248	4,816,757	18,210,331
	Open Seasonally	*Open Yearlong*	*Designated Intensive Use*	*Limited/Restricted Yearlong*	*Closed Yearlong*	*Total*
Total BLM & National Forests/Grasslands	4,734,409	11,306,137	4,210	5,647,531	4,923,433	26,615,720

* Only includes lands in Montana.

OHV's are used for a number of recreation activities. Photo courtesy of Montana Trail Vehicle Riders Association.

low as 6% or as high as 20% of total recreation activity participation.

The words off-road and off-highway are often used synonymously and usually mean any riding that is not on pavement or on a high-standard gravel road. Riding the primitive roads and trails on public lands is often referred to as "off-road." It is unknown exactly how many people drive motorized vehicles cross-country. This does not refer to those people who just pull off adjacent to an existing road or trail to park or let someone pass, but who actually travel cross-country. Estimates vary up to 10%, depending on location, that people engaged in motorized activities travel cross-country. Recreation specialists and law enforcement personnel (B. Duncan et al., pers. comm. 1999) estimate when one looks at the three-state area from the open grasslands in the east to the heavily forested areas of the west and take into account the variations in seasonal use, cross-country travel by motorized vehicles probably averages 1% or less of the total. This is a small percentage of the total recreation OHV use, but motorized wheeled cross-country travel does cause problems as identified in this EIS.

The type of activities and the amount of recreation use varies greatly from east to west. People travel cross-country for many reasons. Most motorized wheeled cross-country use in eastern Montana, North Dakota and South Dakota occurs during the fall hunting season. Some recreationists drive cross-country in conjunction with other activities such as hunting, while for others motorized wheeled cross-country travel is the experience they are seeking. Some people just like to explore using their motorized vehicle. Some prefer more leisurely, less challenging activities, while others prefer the challenge of a steep hillside. Public lands provide many opportunities for OHV use that vary from backcountry to concentrated use areas such as the BLM South Hills OHV area near Billings. While there are intensive use areas on BLM lands with no restrictions on where one can drive, there are no designated OHV areas offering motorized recreationists the opportunity to ride designated roads and/or trails that form a loop system with a variety of opportunity and length (much like the winter snowmobile trail systems).

In the eastern portion of the analysis area, impacts from intensive motorized wheeled cross-country use are minimal, which suggests a low frequency of motorized wheeled cross-country travel occurring in the eastern portion of the analysis area. However, there are a few areas where one can see the evidence of impacts from motorized wheeled cross-country travel. One example is Strawberry Hill near Miles City, a locally popular area used by both motorized and nonmotorized users.

In western Montana, OHV cross-country use is spread over the spring-summer-fall seasons and, in some cases, occurs yearlong at lower elevations where snow is sparse. Many areas are restricted to motorized wheeled cross-country use during the fall hunting season to provide for game security and/or provide a nonmotorized hunting experience. Areas open to motorized wheeled cross-country travel and where terrain and vegetation permit, generally receive additional motorized use during the fall hunting season. There are also a greater number of people out on public lands in western Montana than in eastern Montana, North Dakota and South Dakota because of close proximity to larger population centers.

People with disabilities travel cross-country at times to pursue their recreation activity. Currently, disabled access programs on public lands are focused on the hunting season, but there is increased interest to provide special access for other recreation activities and at other seasons of the year. The hunting season programs usually only allow the disabled person to hunt with a motorized vehicle from roads and trails that are closed to others. In Montana, most disabled access hunter programs are only offered to those who are issued a permit by the State to shoot from a motor vehicle. Section 504 of the Rehabilitation Act of 1973, as amended, addresses exclusion, denied benefits, or dis-

crimination of a qualified individual with a disability from programs or activities conducted by a federal agency.

Recreation Opportunity and Use

The FS and BLM use slightly different methods for calculating recreation use. Each FS Recreation Visitor Day (RVD) is equal to 12 hours. This could be 1 person for 12 hours or 12 people for 1 hour, or any combination thereof participating in that recreation activity. BLM uses the term "visits" to measure use. A BLM visit is not measured in days, but is a person who visits BLM lands engaged in any recreation activity whether for a few minutes, a full day or more. While these methods of tracking recreation use are different, they do give a relative relationship of use between the Rocky Mountain, Great Plains, and North American Prairie Regions.

Rocky Mountain Region: This consists of the Beartooth District of the Custer National Forest, the Gallatin, Beaverhead-Deerlodge, Helena, Lewis and Clark, Lolo, Flathead, and Kootenai National Forests and the lands managed by the BLM Field Offices at Butte, Dillon, Missoula and Lewistown.

NFS and BLM lands in this region contain many thousands of miles of fishing streams, hundreds of lakes, thousands of miles of constructed roads and trails, hundreds of developed recreation sites, and millions of acres of developed and undeveloped lands. NFS and BLM lands cover 17.8 million acres. Vegetation varies from dry foothill grasslands to dense moist forests. Topography varies from gentle and rolling to steep. Motorized wheeled cross-country travel occurs mostly on the flatter, more open country.

The region, situated between Yellowstone and Glacier National Parks, bisected by Interstates 90 and 15, and containing the population centers of Butte, Helena, Bozeman, Missoula, Livingston, Dillon, Hamilton, Kalispell, and Libby, attracts local recreationists and is a destination for many out-of-state visitors. Many cities have local OHV groups or associations. Just about every type of outdoor recreation takes place on these public lands. Because of the close proximity to larger population centers and good public road access, this region receives the most visitor use in the three-state area. The majority of motorized use occurs in this region. NFS lands cover 16.3 million acres in this area with approximately 8.3 million acres open seasonally or yearlong to motorized wheeled cross-country travel. Total visitor use for all activities on NFS lands was approximately 13 million RVD's for 1996. BLM lands cover 1.5 million acres in this area with approximately 1 million acres open seasonally or yearlong to motorized wheeled cross-country travel. Total recreation visitor use on these BLM lands was approximately 2 million visits in 1995.

Great Plains Region: This region contains the Grand River, Cedar River, and Little Missouri National Grasslands (all now part of the Dakota Prairie Grasslands), the portion of the Custer National Forest located in central and eastern Montana and in western South Dakota, and lands managed by the BLM Field Offices in North Dakota, South Dakota, Miles City, Malta, Lewistown, and Billings.

NFS and BLM lands in this region contain fishing streams, rivers, lakes and ponds, many constructed roads, and some constructed trails. In addition to designated roads and trails, nondesignated roads and trails are formed by visitors traveling cross-country. These roads and trails may be many years old and are not maintained. These routes often provide more challenging experiences, especially for horseback riders, hikers, and mountain bike enthusiasts. Public land in this region is popular with both in-state and out-of-state hunters seeking antelope, deer, and upland birds.

The Grand River and Cedar River National Grasslands comprise about 162,000 acres in northwestern South Dakota and southwestern North Dakota. There are no constructed trails and no developed campgrounds on the Grand River and Cedar River National Grasslands. Hunting is the most popular recreation activity, although camping and picnicking do occur. Prairie dog viewing and shooting are also popular activities. Some warm-water fishing is available on small reservoirs, and limited river floating is available during highwater seasons. Total visitor use for all activities averaged 14,700 RVD's annually between 1992 and 1996.

At slightly over a million acres, the Little Missouri National Grassland is the largest national grassland. The Little Missouri River, one of the longest freeflowing rivers in the United States, is a state-designated scenic river and provides canoeing opportunities when water flows are up. Large, remote, unroaded tracts can still be found in the grasslands. The 120-mile Maah-Daah-Hey Trail on the Little Missouri National Grassland connects the North and South Units of Theodore Roosevelt National Park. There are three developed campgrounds and three developed picnic grounds. Hunting (big game, small game, and waterfowl) is the most popular activity, followed by motorized travel for viewing scenery. The Little Missouri National Grassland offers most of the elk and all of the bighorn sheep hunting in the State of North Dakota. Camping, hiking, and horseback riding are also popular activities.

Interstate 94 bisects the Little Missouri National Grassland and U.S. Highway 12 cuts through the southwest corner. Tourists are attracted to the three units of the Theodore Roosevelt National Park within the grassland boundary and to nearby Medora, North Dakota, a rebuilt cowboy town. The rugged badlands topography in the grasslands attracts

Big game hunting.

visitors. Lake Sakakawea, a major recreation resource, lies nearby to the north and east, and draws people to that area. Total visitor use for all activities averaged 96,000 RVD's annually between 1992 and 1996.

The Custer National Forest is located in northwestern South Dakota and in several blocks in southeastern and south central Montana. There are many roads, a few trails, six developed campgrounds, and a few fishing streams and ponds. In the west, the Ashland area with its twisted ravines, rounded hills covered with ponderosa pine, and large grassy areas is popular with thousands of hunters that annually search for white-tailed deer, mule deer, and wild turkeys. The easternmost portion of the Custer is grassy hills punctuated by massive limestone-capped buttes and is home to the second largest density of raptors in the United States. This area is popular with birders and hunters.

BLM lands in the Great Plains cover 6.9 million acres in the analysis area with approximately 4.9 million acres open seasonally or yearlong to motorized wheeled cross-country travel. Total recreation visitor use on these BLM lands was 521,000 visits in 1995. Hunting is the most popular recreation activity. Other popular recreation activities include camping, horseback riding, and motorized travel for viewing scenery. Most public lands in this region are undeveloped, however there are a few campgrounds, picnic areas, and small fishing reservoirs.

North American Prairie Region: The Sheyenne National Grassland (now part of the Dakota Prairie Grasslands) comprises about 70,000 acres in southeastern North Dakota and represents a remnant area of tallgrass prairie. This grassland contains one fishing stream, five fishing ponds, and a number of constructed roads and two-track prairie trails. A 25-mile portion of the North Country National Scenic Trail was constructed on this grassland. There are no developed recreation sites.

Big game and upland bird hunting and motorized travel for viewing scenery are the most popular recreation activities on this unit. Canoeing is popular on the Sheyenne River, which flows through parts of the grassland. Photography, horseback riding, and fishing are also summer recreation activities. The Fargo-Moorhead metropolitan area lies 50 miles from the grassland, and a fair number of people from that area recreate on the grassland. Total visitor use for all activities averaged 21,000 RVD's annually between 1992 and 1996.

ENVIRONMENTAL CONSEQUENCES

Assumptions

Most OHV use occurs on roads and trails. Only a small percentage of the total recreation OHV use occurs cross-country, but motorized wheeled cross-country travel does cause problems. For many recreationists, the effect of motorized wheeled cross-country travel is user conflicts and minimizing such travel would reduce the number and intensity of conflicts between motorized and nonmotorized recreationists.

Recognizing there would continue to be some intentional and unintentional cross-country travel, the analysis assumes that over time, through education and enforcement, most users would follow travel restrictions.

Presently, roads and trails, some of which are user-created, access the general areas where most recreation activities take place on public lands. Roads and trails already lead to most site-specific recreation spots, such as dispersed camping and picnicking sites, lake, stream, and pond access, shooting areas, historic mining areas, and viewing areas.

The sale of OHV's will increase as the population increases, based on the economic model discussed later in the Economics section of this chapter.

Effects Common to All Alternatives

The BLM and FS have defined recreation activities in sixty different categories, such as big game hunting, ice fishing, tent camping, riding ATV's, etc. Using these definitions, no recreation activities would be eliminated by any of the alternatives. OHV use would still occur on roads and trails under all alternatives. Some of the recreation opportunities within an activity may change. No recreation users would be "locked out" from NFS and BLM lands, since access on roads and trails would remain the same. Effects on various aspects of recreation opportunities are covered under the alternatives.

Under all alternatives, disabled access will be allowed per the Rehabilitation Act of 1973. At the field office or ranger district level, each request will be evaluated on a case-by-case basis as specified by the Rehabilitation Act.

No Action Alternative

Under the No Action Alternative, user conflicts would continue to increase as more motorized recreation occurs on public lands that are open and unrestricted to motorized wheeled cross-country travel. Motorized recreation use is increasing, as shown in the Economics section, and as this use increases, more people would travel cross-country in places where they are allowed. On BLM and NFS lands, conflicts from motorized wheeled cross-country travel would only be reduced when site-specific planning is completed and implemented or when emergency closures are put into effect. The size of these site-specific planning areas would vary and may be a watershed, mountain range, ranger district or field office, or a project area such as a timber sale.

Nonmotorized recreationists would continue to have their recreation experiences reduced by the noise, exhaust fumes, and wheel tracks left behind from motorized wheeled cross-country travel. Noise spoils the solitude that many nonmotorized recreationists are seeking, especially in remote areas. In the Rocky Mountain Region (western and portions of central Montana) there are many areas where motorized wheeled cross-country travel is not allowed. Some of these areas are entirely closed to motorized vehicles, while others have designated routes open to a variety of motorized vehicles within them. People seeking solitude or a quiet recreation experience can usually find the recreation experience they are looking for in one of these areas, however, these areas may not be close to where they are or have desirable settings or attractions that make people willing to travel to them. Areas that are nonmotorized or contain nonmotorized trails are generally not available on the Great Plains and North American Prairie NFS and BLM lands, where most of the area (approximately 75%) is presently open to motorized wheeled cross-country travel seasonally or yearlong.

Cross-country motorized recreation opportunities would continue under this alternative. Motorized recreationists who prefer to stay on roads and trails would continue to be impacted by those recreationists traveling cross-country on motorized vehicles and not practicing Tread Lightly! principles of staying on existing routes and minimum impact.

Disturbance of the natural appearing landscape by user-created roads and trails would continue to have an effect on visitors who find the disturbance unsightly, objectionable, and reduces the visual enjoyment of public lands. Depending on location and management area objectives, many additional user-created routes made by people traveling cross-country would not meet land management objectives for scenic values in the foreground and middleground viewing areas.

People affected during hunting seasons are those hunters whose methods of accessing, scouting, stalking, and retrieving are by foot or horse and, to some extent, those motorized hunters who stay on roads and trails. Their hunting experience is reduced or spoiled by other hunters using motorized vehicles to travel cross-country to scout for game, access favorite hunting areas, drive or chase game for a better shot, and retrieve game. Contributing to this diminished hunting experience is the noise created by motorized vehicles that disturbs and displaces game animals from the immediate area. The effects are more pronounced where motorized wheeled cross-country use is more common, such as the flatter and more open country of the Great Plains, the prairie of eastern North Dakota, and along portions of the continental divide. Fewer hunters are affected in the heavily timbered and/or steeper areas of western Montana where there is less opportunity for motorized wheeled cross-country travel and many areas are already closed or restricted yearlong (see maps).

In the Rocky Mountain Region and in the Missouri River breaks area, there are many areas where motorized wheeled cross-country travel is not allowed during the hunting season. Some of these areas are entirely closed to motorized vehicles while others have designated routes open to a variety of motorized vehicles. Hunters seeking a walk-in or quiet hunting experience can usually find the recreation experience they are looking for in one of these areas, however, these areas may not be in the geographic area where they prefer to hunt. These same types of quiet or nonmotorized hunting opportunities are generally not available in the Great Plains and North American Prairie NFS and BLM lands, where most of the area is open to motorized wheeled cross-country travel.

There would be no effect on people with disabilities and those people not physically fit to walk distances, because the same opportunities for motorized travel would continue to be available.

Alternative 1

The effects of this alternative would not eliminate recreation activities, such as driving for pleasure, rock hounding, or driving motorcycles or ATV's, but would influence some aspects of various recreation activities. For OHV users, this alternative would eliminate recreational experiences associated with cross-country driving. It would also limit driving to a camp spot to within 50 feet of a road or trail

by the most direct route. In many situations this would make it difficult for campers to get far enough off the road to avoid the noise and dust from passing traffic. In the recreation activity of motorcycle riding, some motorcyclists, especially in open grassland country, like to ride on and follow cow trails as part of their sport. This cow trail riding by motorcyclists would mostly be eliminated, except for cow trails that also meet the definition of a single-track trail as defined in Chapter 2. Some people may view these changes as a loss of recreation opportunity.

Most public lands would still be accessible by motorized vehicles under this alternative, as the road and trail network is generally dense enough that people do not have to walk more than a mile or two to reach a road or trail. Some people may view these changes as a loss of recreation opportunity. Restricting motorized wheeled cross-country travelers to roads and trails would have little or no effect on motorized visitors who only use roads and trails now. There would be some loss of motorized access to public lands where there is no legal access by road or trail and where cross-country travel has been used to access NFS and BLM lands.

Because motorized recreation use on roads and trails is allowed during the interim period, little or no displacement of motorized recreationists from public land to adjacent private land is anticipated. Displacement has the greatest probability of occurring if site-specific planning closes or greatly reduces roads and trails available for motorized use within a geographic area.

User conflicts caused by motorized wheeled cross-country travel would be reduced substantially by this alternative. Recreational experiences of nonmotorized recreationists would improve under this alternative. With a reduction in noise, the solitude that many nonmotorized recreationists are seeking should increase in remote areas away from motorized roads and trails. Motorized users who practice Tread Lightly! principles (i.e., stay on existing travel routes and minimum impact) would not have their recreation experiences reduced by impacts from motorized wheeled cross-country travelers.

Disturbance of the natural appearing landscape from past roads and trails created by motorized wheeled cross-country travel would continue to have an effect on visitors who find the disturbance unsightly, objectionable, and reducing their visual enjoyment. Additional disturbance caused by motorized wheeled cross-country travel would be minimized.

Under this alternative, the effect on hunters would vary depending on the experiences they seek. Motorized hunters who drive cross-country to access, scout, stalk, and retrieve game would have a change from their present unrestricted hunting experience to one that restricts them to roads and trails. Hunters whose methods of accessing, scouting, stalking, and retrieving game animals are by foot or horse would have their recreation experience improved by the elimination of noise that disturbs and, potentially, displaces game animals from the immediate area. The effects are more pronounced in the flatter and more open country where motorized wheeled cross-country use is more common.

Restricting motorized wheeled cross-country travel would allow damaged areas to revegetate. This healing over time should improve the visual impression and contribute to a more satisfying recreation experience.

Alternative 2

Alternative 2 would have similar effects as Alternative 1 with the following exceptions. Driving to a camp spot would be limited to 300 feet (rather than 50 feet) by the most direct route from a road or trail, allowing people to get further away from the traffic and dust and affording more privacy. Motorized wheeled cross-country travel would be allowed for big game retrieval in the Great Plains area of Montana covering the Custer National Forest with the exception of the Beartooth Ranger District and the BLM Billings, Malta, Miles City, and Lewistown Field Offices with the exception of the Great Falls Field Station. Allowing motorized wheeled cross-country travel for big game retrieval would continue to result in some conflicts between motorized and nonmotorized hunters. The frequency of these conflicts would be low because people cannot use motorized vehicles to hunt cross-country, but can only retrieve a big game animal in possession.

Alternative 3

The effects covered under Alternative 2 apply to the Lewis and Clark, Helena, Beaverhead-Deerlodge, Gallatin, and Custer National Forests, Dakota Prairie National Grasslands, and the Dillon, Butte, Great Falls, Billings, Malta, Miles City, Lewistown, North Dakota and South Dakota BLM Field Offices. The exception to Alternative 2 is that hunters would only be allowed to drive cross-country for game retrieval between the hours of 10 a.m. and 2 p.m. Hunters who shoot their game late in the day and want to retrieve it by motorized vehicle would have to wait until the following day. Since the majority of big game hunting occurs in the morning and evening hours, this alternative would reduce user conflicts. Individuals who wish to drive to retrieve game would not be allowed to do so when others are hunting during prime hours.

The effects covered by the No Action Alternative apply to the other areas since there is no change from the current direction. However, there is generally less opportunity for

motorized wheeled cross-country travel in the Kootenai, Flathead and Bitterroot National Forests because of timber cover, heavy forest undergrowth and brushfields, and/or steep slopes. Therefore, effects on both motorized and nonmotorized recreationists are minimal.

Alternative 4

The effects identified under the No Action Alternative apply from June 15 to August 31 and December 2 to February 15 when motorized wheeled cross-country travel is allowed. In the Rocky Mountain Region these effects would occur primarily during the June 15 to August 31 open season when most of the people are using the areas. Fewer nonmotorized recreationists are affected in the Great Plains and North American Prairie regions during this open time, as the majority of use in these regions occurs during the fall hunting season when cross-country travel would be prohibited. This alternative would not allow motorized hunters to drive cross-country to access, scout, stalk, and retrieve game.

The effects on recreationists during the restricted period September 1 to December 1 and February 16 to June 14 are similar to the effects in Alternative 2 with some exceptions. Motorized wheeled cross-country game retrieval is allowed in all NFS and BLM lands. For public lands in the Great Plains and North American Prairie regions, this alternative precludes motorized wheeled cross-country travel during the fall hunting season when most motorized wheeled cross-country travel occurs in this area. During the periods when visitors are allowed to drive cross-country there would be some use, although the amount would be minimal.

Alternative 5

Alternative 5 has the same effects as Alternative 2 except those associated with motorized wheeled cross-country travel for game retrieval, which would not be allowed within any NFS or BLM lands.

Cumulative Effects

The effects on the settings and recreation activities are for the interim period until site-specific planning takes place. Cumulatively, under Alternative 1, motorized wheeled cross-country travel would be restricted on most public lands in the analysis area (Table 3.2). These lands would be added to lands already closed or restricted to motorized wheeled cross-country travel in the three states. Public lands already closed or restricted to motorized wheeled cross-country travel include all Montana, North Dakota and South Dakota state lands, federal wildlife refuges, and areas managed by the National Park Service. Some motorized wheeled cross-country travel is permitted on designated areas of Bureau of Reclamation lands. Those looking for motorized wheeled cross-country travel opportunities would have to use one of the six OHV intensive use areas or other public lands open to motorized wheeled cross-country travel.

For Alternative 2, the cumulative effects are the same as the cumulative effects for Alternative 1 with the exception of allowing game retrieval on BLM and Custer National Forest lands in the eastern portion of Montana (Table 3.2).

The cumulative effect of Alternative 3 is that most public lands in the three-state analysis area east of the continental divide would be off limits to motorized wheeled cross-country travel (Table 3.2). These lands would be added to lands already closed or restricted to motorized wheeled cross-country travel in the three states. Public lands already closed or restricted to motorized wheeled cross-country travel include all Montana, North Dakota and South Dakota state lands, federal wildlife refuges, and areas managed by the National Park Service. Some motorized wheeled cross-country travel is permitted on designated areas of Bureau of Reclamation lands.

The cumulative effect of Alternative 4 is that recreationists would have more seasonal motorized wheeled cross-country restrictions placed on their activities (Table 3.2). Continued alterations to recreation settings may occur from additional user-created roads and trails.

For Alternative 5, the cumulative effects are the same as the cumulative effects for Alternative 1 (Table 3.2).

Comparison of Alternatives

Recreationists can be separated into motorized and nonmotorized. The No Action Alternative is the most desirable for motorized recreationists, followed by Alternative 4 and then Alternative 3. Alternatives 1, 2, and 5 would be the least desirable for motorized recreationists. For nonmotorized recreationists, the benefits of the alternatives are reversed where Alternatives 1, 2, and 5 are the most beneficial, followed by Alternative 3, then Alternative 4. The No Action Alternative would be the least desirable for nonmotorized recreationists.

The No Action Alternative has the most detrimental effects to recreation experiences by contributing to conflicts between users. Because Alternative 4 leaves the summer season open to motorized wheeled cross-country travel, it has the next most detrimental effects to recreation experiences. Those motorized users that travel cross-country may feel they are losing some opportunities for their recreation activity with Alternatives 1, 2, and 5.

Table 3.2 FS and BLM Cumulative Acres Limited/Restricted or Closed to Motorized Wheeled Cross-Country Travel

	No Action	*Alternative 1*	*Alternative 2*	*Alternative 3*	*Alternative 4*	*Alternative 5*
Current Acres Closed Yearlong	4,923,000	4,923,000	4,923,000	4,923,000	4,923,000	4,923,000
Current Acres Limited/ Restricted Yearlong	5,648,000	5,648,000	5,648,000	5,648,000	5,648,000	5,648,000
Additional Acres Limited/ Restricted Yearlong	0	16,031,000	16,031,000	12,478,000	0	16,031,000
Total	10,571,000	26,602,000	26,602,000	23,049,000	10,571,000	26,602,000

The No Action Alternative has the greatest effect on recreation settings. The continuation of user-created roads and trails could lead to more roads and trails that may need to be reclaimed when site-specific planning is completed. Since there would be the potential for more roads and trails, it would take longer to reclaim the roads and trails not needed for a permanent public land transportation system. Creation of more user-created roads and trails is possible in Alternative 4, but most likely, there would be fewer new roads and trails than the No Action Alternative. Under Alternatives 1, 2, and 5 additional user-created roads and trails would be less than the other alternatives, therefore there would be fewer to reclaim. Alternatives 1, 2, and 5 would allow damaged areas to revegetate.

INVENTORIED ROADLESS, RECOMMENDED WILDERNESS AND WILDERNESS STUDY AREAS

AFFECTED ENVIRONMENT

This section discusses those areas within the analysis area referred to as Inventoried Roadless Areas, Recommended Wilderness Areas, and Wilderness Study Areas.

Since 1970, the FS has inventoried and studied roadless areas greater than 5,000 acres and roadless lands, regardless of size, adjacent to existing wilderness. This inventory was updated and reevaluated during preparation of the current land and resource management plans known as forest plans. These roadless areas are referred to and tracked today as Inventoried Roadless Areas. Some of these areas were recommended for wilderness in forest plans and are referred to as Forest Plan Recommended Wilderness Areas.

In 1977, Congress passed the Montana Wilderness Study Act (P. L. 95-150). Congress identified specific areas to be studied. These areas are tracked as Montana Wilderness Study Areas.

In the 1980's and early 1990's, the BLM went through a process of inventory, analysis, and recommendation for lands that could be included in the National Wilderness Preservation System. An EIS was completed and the report submitted to Congress. No motorized wheeled cross-country travel is allowed in any BLM Wilderness Study Area and no BLM Wilderness Study Area is part of the affected environment for this project.

As a minimum, all forest plans state that Forest Plan Recommended Wilderness Areas and Montana Wilderness Study Areas will be managed to maintain their existing wilderness character and potential for inclusion in the National Wilderness Preservation System. Not all Inventoried Roadless Areas in forest plans are intended to remain undeveloped. The desired future condition identified in forest plans for Inventoried Roadless Areas ranges from full development to Recommended Wilderness. FS policy requires that whenever a ground disturbing project is proposed within an Inventoried Roadless Area, the effects of that project on the roadless area must be analyzed and disclosed.

Current forest plan direction calls for many areas within FS Inventoried Roadless Areas, Recommended Wilderness Areas, and Montana Wilderness Study Areas to be closed to motorized wheeled cross-country travel yearlong. These lands are not part of the affected environment for this project. There are other lands within FS Inventoried Roadless Areas, Recommended Wilderness Areas, and Montana Wilderness Study Areas where current forest plan direction does not prohibit motorized wheeled cross-country travel yearlong. This amounts to approximately 3.4 million acres of Inventoried Roadless Areas, 169,000 acres of Forest Plan Recommended Wilderness Areas, and 430,000 acres of Montana Wilderness Study Areas. These lands are in-

cluded as part of the affected environment in this EIS. Forest Plan Recommended Wilderness Areas and Montana Wilderness Study Areas are mostly found within Inventoried Roadless Areas, but may also contain other adjacent lands. Effects of motorized wheeled cross-country travel identified in other sections of this chapter and exceptions to motorized wheeled cross-country travel restrictions identified under each of the action alternatives also apply to Inventoried Roadless Areas, Forest Plan Recommended Wilderness Areas, and Montana Wilderness Study Areas.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

Users with the expectation that Montana Wilderness Study Areas would provide a given level of solitude may be offended by the presence of motorized recreationists. Agency officials generally view social effects (e.g. solitude) as transitory, as these forms of recreation would not be allowed if the Wilderness Study Area were designated as Wilderness (General Accounting Office 1993).

No Action Alternative

Under the No Action Alternative, current forest plan direction allows motorized wheeled cross-country travel to continue within Inventoried Roadless Areas, Forest Plan Recommended Wilderness Areas, and Montana Wilderness Study Areas where the forest plan does not now prohibit it. Motorized wheeled cross-country use may have an effect on the naturalness (physical characteristics) of Wilderness Study Areas (General Accounting Office 1993). The same effect on naturalness also applies to Forest Plan Recommended Wilderness Areas and Inventoried Roadless Areas. These effects can take the form of off-trail vegetation and soil damage, erosion, damage to riparian areas, pollution, and disturbance to wildlife (General Accounting Office 1993). These effects are all covered in other sections of this FEIS. Any effects under the No Action Alternative would probably remain until the area is reclaimed by agency action, because continued and increasing motorized wheeled cross-country travel would not allow areas where vegetation is damaged and/or soil is exposed to be reclaimed by nature.

Alternatives 1, 2, and 5

Under these alternatives, closing of the undeveloped areas to motorized wheeled cross-country travel would further enhance the protection of the physical naturalness of these areas. It should begin to allow nature to reclaim many areas where vegetation is damaged and/or soil is exposed.

Alternative 3

Under this alternative, the effects listed under the No Action Alternative would apply to the undeveloped areas that would remain open to motorized wheeled cross-country travel on Kootenai, Flathead, and Bitterroot National Forest lands. On the other national forests and grasslands, the undeveloped NFS lands that would be restricted to motorized wheeled cross-country travel would have the same effects as covered in Alternatives 1, 2, and 5 above.

Alternative 4

The effects of this alternative would be very similar to those associated with the No Action Alternative.

Cumulative Effects

Alternatives 1, 2, and 5 would take the remaining areas in Forest Plan Recommended Wilderness Areas and Montana Wilderness Study Areas where the forest plan does not currently prohibit motorized wheeled cross-country travel and restrict them yearlong, which would reduce the loss of naturalness so that the wilderness character would remain intact. It would also help protect the naturalness of Inventoried Roadless Areas that are not part of Wilderness Study Areas or Forest Plan Recommended Wilderness Areas. The No Action Alternative and Alternative 4 may pose a greater risk of not maintaining wilderness character on all forests. Alternative 3 would have a greater risk of not maintaining wilderness character on the Kootenai, Flathead, and Bitterroot National Forests.

Comparison of Alternatives

Alternatives 1, 2 and 5 are the most desirable for protecting the physical naturalness of undeveloped areas, to help maintain the wilderness character of Montana Wilderness Study Areas and Forest Plan Recommended Wilderness Areas, and to begin to allow nature to reclaim many areas where vegetation is damaged and/or soil is exposed. The next most desirable alternative for protecting naturalness and wilderness character is Alternative 3. The No Action Alternative and Alternative 4 are the least desirable for protecting naturalness and wilderness character.

SOCIAL

AFFECTED ENVIRONMENT

Introduction

This section focuses on demographic and social trends occurring in Montana, North Dakota and South Dakota. The following individuals and groups will be discussed: recreationists, environmental advocacy groups, ranchers/ permittees, and rural communities.

Demographics and Social Trends

In 1998, the populations of Montana, North Dakota and South Dakota were each less than one million people, resulting in population densities of 6 people per square mile in Montana, 9 people per square mile in North Dakota, and 10 people per square mile in South Dakota. Montana's population grew by 10% from 1990 to 1998. In that same period, the population in North Dakota decreased by less than 1% and the population in South Dakota grew by 6%. In each of these states, rural areas tended to decline in population while larger urban areas tended to grow. (All population data is from the Department of Commerce, Bureau of the Census, various dates.)

In Montana, the larger population centers, where population is increasing, are located in the western and south-central parts of the state. Areas with declining populations tend to be located in the eastern and north-central parts of the state. Montana's population is expected to continue growing, primarily due to in-migration, and is projected to exceed 980,000 by 2010. Growth will continue to be higher in the population centers in western Montana than for the state as a whole.

In North Dakota, 46 of 53 counties lost population from 1990 to 1998. In general, major urban areas and reservations had higher population growth rates. The population of North Dakota is projected to increase to 677,000 by the year 2005, and to 704,000 by the year 2015.

In South Dakota, slightly over 40% of the counties have gained in population from 1990 to 1998. Counties that gained population are located in western South Dakota near the Black Hills, and in eastern South Dakota where some of the larger population centers are located. Counties that lost population tended to be those with smaller populations located in the east-central part of the state. The population of South Dakota is projected to increase to 810,000 by the year 2005 and to 840,000 by the year 2015.

There are seven Indian Reservations located in Montana, three in North Dakota, seven in South Dakota, and two that straddle the North Dakota/South Dakota border. In 1990, over 30,000 American Indians lived on Montana Indian Reservations, over 15,000 in North Dakota and nearly 34,000 in South Dakota. American Indian populations on reservations tend to be younger and grow faster than the non-Indian populations of the surrounding areas.

A trend that is common to all states is the aging of the population (Campbell 1996). The percentage of persons under 20 years of age will decrease and the percentage of people over 65 will increase over the next 30 years. As an example, in Montana, the percentage of population under 20 years old is projected to decrease from 30.2% in 1995 to 24.3% in 2025. Conversely, the percentage of population 65 and over is expected to increase from 13.1% in 1995 to 24.5% in 2025. This would translate into a Montana population over 65 that more than doubles in size between 1995 and 2025. The percentage of people over 65 is actually increasing more rapidly in states like Montana, North Dakota and South Dakota because young people are more likely to leave for advanced education, military service and employment opportunities not available locally.

The movement of people into some rural areas began in the 1970's and is expected to continue into the 21st century. This migration turnaround reflects a reversal of the rural-to-urban migration pattern found in most of the U.S. prior to the 1970's. Intermountain valleys in Montana, such as the Paradise Valley south of Livingston and the Bitterroot Valley south of Missoula, typically experience in-migration. In scenic areas, particularly those suitable for recreation, ranches are being sold for recreation uses or subdivided for homes. Some in-migrants buy smaller lots to ranch or farm but do not depend on an economic return from the property. Some of these rural areas are moving from a long-term economic dependency on agriculture or mining to a service-based economy. The population in-migration has increased contacts between longtime rural residents and newcomers whose beliefs and values may challenge the existing way of life. Long-time residents may feel they are losing control of their community, making it a less desirable place for them to live.

Other rural areas, particularly those on the Great Plains in eastern Montana, North Dakota and South Dakota, have continued to lose residents in the last decade. These communities typically have had economies based on agriculture, oil and gas, or other mineral development, and have suffered declines in population as agriculture lands became consolidated and mineral development came and left. Some of these communities have difficulty maintaining their local businesses as well as such services as schools and

health care. Residents are concerned about the economic survival of their communities and preserving their traditional lifestyles.

Another important trend is the increasing popularity of public lands for recreation. A recent comprehensive report on recreation by Cordell (1999) indicates demand in the Rocky Mountain West (which includes Montana, North Dakota and South Dakota) for the following activities will increase substantially (in days of demand) by the year 2050: nonconsumptive wildlife activities (94%), sightseeing opportunities (85%), fishing (59%), off-road driving (54%), hiking opportunities (44%), primitive camping (29%), backpacking opportunities (24%), and hunting (22%). Some of the major issues facing recreation include protecting resources and open space, acquiring more land to meet anticipated demand, resolving conflicts among different recreation users, and addressing the need for more access to outdoor recreation areas (USDA 1989).

Many communities are having problems maintaining access to public lands if access through closed private lands is required to reach public lands. In addition, loss of access to private lands is putting more pressure on public lands. Loss of access occurs for a variety of reasons: lands are purchased for recreation and home sites and closed to others, lands are leased to outfitters and closed to others, or lands are closed to avoid problems with safety, fire risk, cut fences, spreading weeds, litter and open gates.

Changing Attitudes

The proposed changes in the management of motorized wheeled cross-country travel on public lands are just one aspect of a broader debate on environmental issues and resource management that is occurring both in American society and globally. Social values for lands and natural resources take many forms, such as commodity, amenity, environmental quality, ecological, public use, spiritual, health, and security (Stankey and Clark 1991). In the past, natural resource management has tended to emphasize commodity values. The emerging emphasis on other values has forced a reevaluation of the commodity emphasis. Stankey and Clark's (1991) report states, "A new focus on the part of the public involves a shift from commodities and services to environments and habitats. The public is much more concerned about forests as ecosystems than they have been previously and is more concerned with having access to decisions about them."

A nationwide survey conducted by Roper Starch Worldwide (1998) offers some interesting information on attitudes toward environmental regulation. Respondents were asked whether they thought environmental laws and regulations had gone too far, had not gone far enough, or had achieved the right balance. Almost three times as many respondents thought laws and regulations had not gone far enough (47%) as those who thought laws and regulations had gone too far (16%). Just over a quarter of the respondents (26%) thought the laws struck the right balance. In contrast to the nation as a whole, 29% of the respondents living in rural areas and 27% of the respondents living in the West stated that environmental regulation had gone too far.

A growing counter movement has been occurring in the West. In places where land use has been unrestricted, there is increasing concern regarding the control and management of public lands. People with these concerns feel that change in public land management is being driven by government officials and environmental advocacy groups who may not have a true understanding of the lands or the people living nearby who depend upon these lands for their livelihood and recreation. There is particular concern about the loss of traditional uses of the land, such as livestock grazing and motorized off-highway vehicle use. People with these concerns seek to balance what they consider to be "environmental extremism" with economic and human concerns. They may feel that local elected officials who deal with their problems on a daily basis are better equipped to make decisions about public lands.

Affected Groups

The groupings in this section are made to facilitate the discussion of social impacts. It should be noted that these groupings greatly simplify the members' actual values and attitudes. For instance, some ranchers engage in recreation and are particularly concerned about the environment. Recreationists may engage in motorized and nonmotorized types of recreation, and may have high levels of concern about the environment.

Recreationists: Research on the effects of participation in outdoor recreation shows such benefits as improved physical and mental health, increased self-esteem, and an enhanced sense of well-being and spiritual growth. Participation in outdoor activities can also increase family interaction and foster cohesion. Benefits to communities include increased social solidarity, satisfaction with community life, and increased ethnic and cultural understanding (USDA 1989). A survey of the American public on the effects of participation in outdoor recreation indicates that people who participate in active outdoor recreation are more satisfied with the quality of their lives in a wide variety of areas than is the general public (Roper Starch 1994).

Cordell and others (1999) have developed national and regional projections for a variety of outdoor recreation activities. In the Rocky Mountain region, about three million people participated in off-road driving in 1995. That

number is estimated to increase 17% by the year 2020. About five million people participated in hiking in 1995; that number is estimated to increase 24% by the year 2020. Nearly two million people participated in backpacking in 1995; that number is estimated to increase 18% by 2020. Finally, in the Rocky Mountain Region, two million people participated in hunting in 1995. That figure is estimated to increase 12% by 2020.

A study of Montana residents' trail use was conducted in 1994 by the Institute for Tourism and Recreation Research. This study was designed to be representative of the entire Montana population and included participants who engaged in walking for pleasure/day hiking, driving vehicles off-road for recreation, backpacking, using an ATV and motorcycling off-road. The average age of adult participants was concentrated in the late 30's and early 40's age groups for both motorized and nonmotorized activities with very little difference between the two types of activities. The oldest group was walkers with an average age of 45.

OHV recreation is a family activity. Photo courtesy of Montana Trail Vehicle Riders Association.

Respondents were asked about their motivations for taking a trail trip. The most important motivations were nature (be in a natural setting, understand the natural world better), physical fitness (improve my physical health, help keep me in shape), stress release (get away from my everyday responsibilities, help reduce or release some built-up tensions) and affiliation (so I could do things with my companions, be with others who enjoy the same things I do).

Survey respondents were also asked what other activities were compatible with the activity they participated in. Not surprisingly, backpackers and day hikers found other nonmotorized activities to be most compatible with their activity. In all cases, motorized users were much more likely to say their activity was compatible with day hiking and backpacking. Forty-five percent of the respondents agreed that conflicts on trails are relatively minor while 15% disagreed. Less than 2% of the respondents reported conflict with others during their most recent trail experience.

According to Boston and others (1997), "OHV recreation covers a huge range of activity from casual family use to intense competition; from use in the backyard to use on high mountains; wildland trail use to open desert. Enjoyment comes from use where the vehicle itself is the focus of the experience to the use of the vehicle as an enjoyable method of reaching or enjoying remote terrain; from a way to escape societal pressures to a way of sharing experiences with family or friends; from casual to organized activities."

Based on comments received during scoping, motorized wheeled cross-country vehicle users participate in their activities in Montana, North Dakota and South Dakota as a way for families and friends to enjoy the beautiful backcountry scenery together. They believe it has helped their children grow into responsible citizens and passing these activities on to future generations is important. They indicated they enjoy the sport for many of the same reasons opponents say their activities should not be allowed, i.e. the chance to enjoy the beauty of nature and spend time away from the masses; they just prefer to participate in these activities using motorized vehicles. They feel they are being forced out of forests by more restrictive rules and regulations. Some indicated that with the increasing population more places, rather than fewer, need to be open to motorized activities. Some rely on motorized wheeled cross-country travel to retrieve game during hunting season. Many OHV users indicated they have a great respect for the land and try to be courteous when traveling. They feel the few people who do not follow the rules are giving all motorized wheeled cross-country travelers a bad name. Some even indicated a need for some restrictions on cross-country use.

The following concerns were identified by motorized wheeled cross-country users during the scoping period: loss of access to areas traditionally used for these activities, damage being unfairly blamed on motorized wheeled cross-country vehicle use, and planning focused on a large area rather than on particular problem areas. Some of these recreationists indicated they are not concerned with this preliminary step, but feel it is only the beginning and that trail and road closures would follow during the next phase. These commenters support exceptions for game retrieval, disabled access and hunting, although some mentioned fairness for all as an issue. OHV users generally indicated they did not experience conflicts with other users.

Based on comments received during scoping for the OHV EIS/plan amendment, the prime motivation of nonmotorized users appears to be a quiet, peaceful experience in beautiful surroundings away from the rushing and crowding of everyday life. Some indicated that there are fewer and fewer places to "get away from it all" and that protecting what peace is still available is important to the quality of experiences on public lands. Controlling OHV use is a major factor in assuring that peace in the future for them.

Nonmotorized user concerns revolve around conflicts with motorized users. These concerns included noise, the smell of exhaust, dust, safety issues, wildlife displacement and harassment, and resource damage. Some commenters indicated that motorized and nonmotorized uses are not compatible; when motorized use begins in an area, the nonmotorized users go elsewhere. Some nonmotorized users indicate they feel a loss of their personal freedom if they are forced to go to an alternative area to find solitude and quiet.

Some hunters also feel that motorized wheeled cross-country use negatively affects their hunting experience. The results of a survey published by Montana Fish, Wildlife and Parks (1998a) show improper vehicle use/road hunting is one of the top behavior problems witnessed by respondents in the 1997 hunting season. Nearly half of the respondents mentioned this problem. Respondents were also concerned about the widespread use of ATV's and their negative impact on the sport of hunting.

Research (Williams 1993a) shows that the following factors influence the likelihood of conflict: activity style, resource specificity, mode of experience and tolerance for lifestyle diversity. Activity style refers to the significance the person attaches to the activity. Conflict is much more likely to occur if the activity is an integral part of the person's lifestyle rather than an occasional activity. Resource specificity refers to the significance a person attaches to using a specific resource. Conflict is more likely to occur when the person has a special relationship with a place and perceives others are disrupting the traditional uses of the place or devaluing its meaning. Mode of experience refers to the way in which the environment is perceived. Conflict is more likely to occur when the person perceives the environment as part of the experience rather than as a backdrop for the experience. The last factor is tolerance for lifestyle. Conflict is more likely to occur when the user has a higher tendency to reject lifestyles that are different than one's own. Examples include a preference for mechanized versus nonmechanized or consumptive versus nonconsumptive activities.

Motorized and non-motorized uses often occur in the same area.

Noise is a major issue to many nonmotorized users. Most of the scoping comments that indicated conflict as a problem specifically mentioned noise as being one of the major contributors to the conflict. In addition to the idea that nonmotorized users engage in recreation for the serenity, solitude and quiet that it offers, many are also concerned about the effects of noise on wildlife. Some of these users also mentioned their concern about the loss of an alternative to the world in which we live, where the noise of engines is all-pervasive, and the need to protect areas where natural quiet can be experienced.

Some commenters discussed the amount of space taken up by these vehicles, indicating they do not just occupy the space in which they are moving, but also a much larger space surrounding the vehicle; i.e. it only takes one motorized vehicle to fill a whole basin with the sound of the machinery. A noise study conducted by the USDA (1993) indicated that while a motorcycle at a distance of 400 feet or more would not cause sounds loud enough to impact a person's hearing, the sounds produced by five motorcycles ridden on typical motorcycle trails are detectable, at least occasionally, up to one-half mile away.

Research confirms the importance of noise to recreationists. According to Gramann (1999), "Many surveys show that

quiet, solitude and natural sounds play important roles in recreation experiences. Recreation area users consistently state that escaping noise and enjoying the sounds of nature are among the important reasons they visit natural areas."

The aging of the analysis area population is discussed at the beginning of this section. The available research indicates that participation in outdoor activities changes as people age. However, it is unclear how recreation choices will change as the "baby boomer" generation ages. As Hornback (1991) indicates, "Though aging is the prime social trend of the next two decades, we have little understanding of how the leisure sequence unfolds as people age. Do bikers turn into guests at dude ranches or go on 'ecocruises'?"

Numerous comments were received about the aging population as it relates to this proposal. Some comments indicated the needs and desires of the older population should be accommodated and that closing areas to motorized wheeled cross-country travel would restrict access for older people to hunting, fishing, sightseeing and prospecting areas, etc. Other comments indicated that at some point the time comes when people are unable to access the backcountry for peace and solitude by foot or horse and access to those areas must end, just as any other athlete faces the day when they must pass the legacy to their children, grandchildren and those more physically able. In this way, those who can still travel to backcountry areas can enjoy them unspoiled and quiet. Still others indicated they will continue to access these areas as they become older but they will travel in a much slower manner than when they were younger.

The demand for motorized disabled access has, to date, been mainly associated with hunting. However, the 2000 Vision for Montana State Parks (Montana Fish, Wildlife and Parks 1998b) indicates the number of disabled Americans participating in outdoor recreation is increasing, along with the demand for more accessible recreation opportunities. The State of Montana issues permits to hunt from a vehicle for persons who are 100% disabled. In the last few years, 1,000 to 1,200 permits have been issued annually. Several national forests and grasslands have access hunter programs but no formal programs for disabled access other than hunting.

Environmental Advocacy Groups: Based on the comments received during scoping, environmental advocacy groups and associated individuals support a more restrictive policy for motorized wheeled cross-country use, and most feel vehicle use should be restricted to designated and signed roads and trails. New routes should be designated only after public review and completion of travel plans by both agencies. Some of the reasons given for these views include problems with erosion, vehicle pollution, spread of noxious weeds, disturbance to other recreationists, wildlife habitat destruction and fragmentation, and disturbance to native plant communities. Some commenters feel these problems are occurring because the population is increasing, which puts greater pressure on the natural environment.

Some groups indicated the proposal as outlined violated the National Environmental Policy Act (NEPA) and other regulations, and that under this proposal, travel planning would take too long to complete and implement. Concern regarding collaborative processes and cost share agreements with private groups that give any group a special "right" or promote commercialization was also indicated during scoping. Specifically mentioned were projects funded by the motorized recreation industry that would have a vested interest in promoting motorized wheeled cross-country use.

A major concern is the perceived legitimization and continued use of user-created roads and trails that may have been developed through unauthorized means. There is concern that more roads and trails would be developed before travel plans are in place that could prohibit their use. Many indicated that these user-created roads and trails should be closed and revegetated.

Few of these commenters offered opinions on whether exceptions for motorized wheeled cross-country travel for game retrieval, disabled access and/or camping should be allowed. Those that did comment indicated enforcement problems would make these exceptions unworkable.

The condition of resources on public lands is important to the environmental advocacy groups because they value these resources for recreation, wildlife, scenic and spiritual qualities, and a variety of other reasons. Many appreciate just knowing that these areas exist and feel federal agencies have an obligation to manage these resources for future generations.

Ranchers/Permittees: Permittees feel they face increasingly stressful social and economic situations as they try to balance their traditional lifestyles with demands from government agencies and other public land users such as recreationists. Some permittees refuse to let hunters or recreationists cross their private land to gain access to adjacent public lands. The problems prompting these refusals include people driving cross-country and damaging grass, spreading weeds, cutting fences, leaving litter and leaving gates open.

Ranchers increasingly rely on four-wheel drive vehicles and ATV's to deliver feed, salt and supplements to cattle, mend fence, and herd cattle. ATV use has increased dramatically in the past ten years in Montana, North Dakota

and South Dakota with the introduction of the four-wheeled ATV (see Economics section). For all BLM permittees, permission to travel off-road for activities associated with the administration of their permit is implied rather than explicitly stated in the lease. For FS permittees, the situation varies by ranger district.

Rural Communities: Rural communities are facing many challenges. Residents of rural areas believe they are engaged in a struggle to maintain control of their community's character, rather than to control the frontier as in the past. Many groups, including both newcomers and longtime residents, want to maintain the traditional rural character.

Some rural areas, such as those in eastern Montana, North Dakota and South Dakota, have continued to lose residents in the last decade. These communities may be having difficulty maintaining their local businesses and services, such as schools and health care. Residents are concerned about preserving their current lifestyles and the economic survival of their communities. This leads to concern about any government activity that could affect the local economy. They may feel that change in public land management is being driven from the outside by government officials and environmental advocacy groups that have little understanding of local customs and culture. These communities often have a limited ability to react to change because of their small population base (Harris and others 1996).

Other rural areas, such as those in western Montana, are struggling to maintain their rural character in light of high levels of in-migration and economic change from an agricultural to a recreational base. Residents of these communities worry they are "losing their quality of life because of more people, more traffic, and more unplanned haphazard development" (Williams 1993b). At the same time, many communities resist zoning and planning.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

Under all alternatives, the social impacts are described in terms of effects to social well-being. The type of things that could affect social well-being include the amount and quality of available resources, such as recreation opportunities and resolution of problems related to resource activities. Other less tangible beliefs that could affect social well-being include individuals having a sense of control over the decisions that affect their future, and feeling that the government strives to act in ways that considers all stakeholders' needs.

Under all alternatives, disabled access will be allowed per the Rehabilitation Act of 1973. Evaluation of specific requests for access will be made on a case-by-case basis at the field office or ranger district level.

No alternative would affect the demographic or major social trends within the analysis area.

No Action Alternative

Effects to all groups would continue as they have in the past because management of motorized wheeled cross-country activities would not change. This alternative is most responsive to the desires of individuals and groups who feel public lands should remain open to motorized access at the current levels. This alternative best addresses their concerns and would enhance their social well-being. This alternative is most responsive to rural communities whose residents would prefer that current activities on public lands are not limited.

This alternative would give the older population an opportunity to switch from activities such as hiking to less strenuous activities, such as motorized wheeled cross-country vehicle use, as they age. However, there is no clear evidence that people would choose to make this type of change as they age.

Because the noise issue is not addressed in this alternative, conflicts between motorized wheeled cross-country users and other types of recreationists would continue and, perhaps, increase in the future as the number of people recreating on public lands increases. The quality of hunting for some hunters would continue to be disturbed by motorized wheeled cross-country use. People engaged in hiking and other types of nonmotorized recreation would also continue to be affected. Conflicts between ranchers/permittees and motorized wheeled cross-country users would not be addressed by this alternative. These conflicts could diminish the social well-being of affected individuals.

The environmental advocacy groups and many of the people associated with these groups would not support current management because they believe it does not sufficiently protect the resources on public lands. The condition of the resources on public lands is important to these people because they value these resources for recreation, wildlife, scenic and spiritual qualities, and a variety of other reasons.

An increasing number of people in the West and across the country believe that motorized wheeled cross-country vehicle management should place more emphasis on protecting natural resources. This alternative is not consistent with these attitudes.

Alternative 1

Under this alternative, all motorized wheeled cross-country vehicle use would be prohibited with one exception allowed camping within 50 feet of a road or trail. This alternative is most responsive to the desires of individuals and groups who feel motorized vehicle use on public lands should be limited to roads and trails with very limited exceptions. Nonmotorized recreation users would benefit from a reduction in conflicts with motorized wheeled cross-country users, which could enhance their recreation experiences and social well-being. People who engage in motorized wheeled cross-country activities would lose that opportunity on public lands, which could diminish their social well-being. However, they would still be able to use their vehicles on roads and trails. Although little or no social impacts would occur to rural communities, this alternative is not consistent with their preference for leaving activities on public lands at current levels.

This alternative would not give older people an opportunity to substitute motorized wheeled cross-country travel for activities that require more mobility, such as hiking or mountain biking. However, there is no clear evidence that this is what people would choose to do as they age.

Conflicts between motorized wheeled cross-country users and other types of recreationists would be addressed by this alternative, at least partly because noise levels in areas away from roads and trails would diminish. The quality of hunting would be enhanced for those who desire a nonmotorized experience. However, hunters would not be able to drive cross-country to retrieve game, which may be a concern for some. The quality of the recreation experience for those engaged in nonmotorized recreation would be enhanced. However, the exception of camping within of 50 feet of a road or trail may not provide quality experiences for this activity. Reductions in conflict and the resulting enhanced recreation experience could result in increased levels of social well-being for affected individuals.

Conflicts between motorized wheeled cross-country users and ranchers/permittees would be addressed by this alternative, which could enhance the social well-being of the affected individuals. Permittees may be able to travel cross-country on permit-related business if authorized by their permit. However, the final decision would be up to the authorized officer on a case-by-case basis.

The environmental advocacy groups and many of the people associated with these groups may not feel this alternative goes far enough to protect the resources on public lands because it does not deal with the issue of user-created roads and trails. The condition of the resources on public lands is important to these people because they value these resources for recreation, wildlife, scenic and spiritual qualities, and a variety of other reasons.

An increasing number of people in the West and across the country believe that cross-country vehicle management should place more emphasis on protecting natural resources. This alternative is consistent with these attitudes.

Alternative 2

The effects of this alternative would be similar to Alternative 1. However, exceptions would be allowed for game retrieval (in eastern Montana) and camping within 300 feet of a road or trail.

This alternative would not give older people the opportunity to substitute motorized wheeled cross-country travel for activities, such as hiking, that require more mobility. However, there is no clear evidence that this is what people would choose to do as they age.

Conflicts between nonmotorized and motorized hunters could continue in some areas due to the game retrieval exception, which could diminish the social well-being of affected hunters. There is some concern that the exceptions allowed for game retrieval would be difficult to enforce and some people would continue to drive anywhere they wanted.

There would be no effect to permittees and lessees in their use of motorized wheeled cross-country travel to administer their permit or lease.

Alternative 3

Under this alternative, in eastern Montana, North Dakota and South Dakota, all OHV use would be limited to roads and trails with exceptions for game retrieval and camping. For eastern Montana, North Dakota and South Dakota, the effects would be very similar to Alternative 2. Western Montana would be left open for motorized wheeled cross-country travel and the effects there would be similar to the No Action Alternative. However, motorized access for game retrieval would be restricted and some conflicts reduced, which could enhance the social well-being of affected hunters.

Alternative 4

Under this alternative, all OHV use would be seasonally restricted to roads and trails with exceptions for game retrieval and camping. When areas are restricted, nonmotorized recreation users could benefit from a reduction in conflicts with motorized wheeled cross-country users, which could enhance their recreation experiences

and social well-being. Motorized wheeled cross-country vehicle users would lose the opportunity to participate in that activity on public lands during the spring and fall, which could diminish their social well-being. However, these motorized wheeled cross-country opportunities would still be available during the other seasons. Although no social impacts would occur to rural communities, this alternative is not consistent with their preference for leaving activities on public lands at current levels.

During the winter and summer seasons, this alternative would give the older population the opportunity to switch from activities that require more mobility such as hiking to less strenuous activities, such as motorized wheeled cross-country vehicle use. However, there is no clear evidence that people would choose to make this type of change as they age.

During the hunting season in eastern Montana, conflicts between motorized wheeled cross-country users and other types of recreationists would be addressed by this alternative, at least partly because noise levels in areas away from roads and trails would diminish. The quality of hunting would be enhanced for those who desire a nonmotorized experience. There is some concern that the exceptions allowed for game retrieval and ranching activities related to the management of a permit would be difficult to enforce, and some people would continue to drive anywhere they wanted. To the extent that conflict is reduced and the resulting recreation experience enhanced, increased levels of social well-being could result.

During the times of highest use in western Montana, people engaged in hiking and other types of nonmotorized recreation would continue to be affected by conflicts with motorized wheeled cross-country users. Noise from vehicles and related conflicts would continue and, perhaps, increase in the future as the number of people recreating on public lands increases. This could diminish the social well-being of affected individuals.

Conflicts between ranchers/permittees and motorized wheeled cross-country users would be reduced during the fall and spring, but would continue to occur during the summer months. To the extent that conflict is diminished, this alternative would enhance the social well-being of affected individuals.

The environmental advocacy groups and many of the people associated with these groups would not feel this alternative goes far enough to protect the resources on public lands because it restricts areas seasonally rather than yearlong, and it does not deal with the issue of user-created roads and trails. The condition of the resources on public lands is important to them because they value the resources for many reasons, such as recreation, wildlife, scenic and spiritual qualities.

An increasing number of people in the West and across the country believe that OHV management should place more emphasis on protecting natural resources. This alternative is consistent with these attitudes. However, some people may feel it does not go far enough.

There would be no effect to permittees in their use of motorized wheeled cross-country travel to administer their permit.

Alternative 5

Under this alternative, all motorized wheeled cross-country vehicle use would be prohibited with an exception for campsites within 300 feet of a road or trail by the most direct route. Nonmotorized recreation users would benefit from a reduction in conflicts with motorized wheeled cross-country users, which may enhance their recreation experiences and social well-being. People who engage in motorized wheeled cross-country activities would lose that opportunity on public lands, which might diminish their social well-being. However, they would still be able to use their vehicles on roads and trails. Although little or no social impact would occur to rural communities, this alternative is not consistent with their preference for leaving activities on public lands at current levels.

This alternative would not give older people the opportunity to substitute motorized wheeled cross-country travel for activities, such as hiking, that require more mobility. However, there is no clear evidence that this is what people will choose to do as they age.

Conflicts between motorized wheeled cross-country users and other types of recreationists would be addressed by this alternative, at least partly because noise levels in areas away from roads and trails should diminish.

The quality of hunting would be enhanced for those who desire a nonmotorized experience; however, hunters would not be able to drive cross-country to retrieve game, which may be a concern for some.

Conflicts between motorized wheeled cross-country users and permittees would be addressed by this alternative, which could enhance the social well-being of the affected individuals. There would be little effect to permittees in their use of motorized wheeled cross-country travel to administer their permit or lease. However, they would be expected to follow certain guidelines, such as avoiding riparian areas and steep slopes, and washing their vehicle after use in weed-infested areas.

The environmental advocacy groups and many of the people associated with these groups may not feel this alternative goes far enough to protect the resources on public lands because it does not deal with the issue of user-created roads and trails. The condition of the resources on public lands is important to these people because they value these resources for recreation, wildlife, scenic qualities, and a variety of other reasons.

Increasing numbers of people in the West and across the country believe that motorized vehicle management should place more emphasis on protecting natural resources. This alternative is consistent with these values.

Civil Rights

No civil rights effects associated with age, race, creed, color, national origin or sex have been identified.

Environmental Justice

During the course of this analysis, no alternative considered resulted in any identifiable effects or issues specific to any minority or low income population or community. The agencies have considered all input from persons or groups regardless of age, race, income status, or other social and economic characteristics.

Cumulative Effects

The expected increase in study area population and related increase in both motorized and nonmotorized recreation activities, particularly in western Montana, would, in general, lead to more conflicts among recreationists on roads, trails and areas that remain open to OHV use. The loss of opportunities for (or displacement to other areas of) nonmotorized users due to increases in conflict that occur on areas that are open to both motorized and nonmotorized users could be at least partially offset by the enhanced opportunities for nonmotorized recreation available under Alternatives 1, 2, 4 and 5, and in eastern Montana, North Dakota and South Dakota under Alternative 3. Under Alternative 3, this offsetting effect would not occur in western Montana. The loss of opportunities for nonmotorized users was also offset by opportunities available in areas that had been closed to OHV use prior to this effort.

Although very little of the motorized recreation use actually occurs off roads and trails, the fact that motorized wheeled cross-country travel has gradually been restricted on most public lands in the study area (see Recreation section, Cumulative Effects) would add to some motorized recreationists' concerns regarding control and management of public lands. Specifically, they may feel that public land managers are not listening and/or responding to their wishes to keep public lands open to motorized use. All alternatives except the No Action Alternative could add to these feelings.

All of the alternatives except the No Action could also add to the concern of some residents of small rural communities about increased government control over public lands. All of the alternatives except Alternative 1 could add to the concern about protection of resources on public lands, and even under Alternative 1, concerns would remain about "user-created" roads and trails. All of the alternatives except the No Action could act to alleviate some of the conflicts between permittees and some other public land users, which are expected to increase in the future. All of the alternatives except the No Action would act to limit some of the motorized opportunities available to the older population. However, there is no evidence that people will substitute motorized wheeled cross-country travel for activities that require more mobility as they age

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ECONOMICS

AFFECTED ENVIRONMENT

Introduction

To evaluate the economic conditions, the entire States of Montana, North Dakota and South Dakota have been considered. All counties of North Dakota and South Dakota are included in this evaluation, even though some of the counties may not be affected by this FEIS.

This section presents trends in employment and earnings by state, trends in per capita income by state, a summary of the economic trends, sales of new motorcycles and ATV's by state, per vehicle expenditures by OHV users, and trends in truck, motorcycles and ATV registration by state.

Economic Conditions

Employment Trends in Montana from 1987-1996: During this ten-year period, the largest number employed was in the Services sector, followed by the Retail and Government sectors. The number employed was much smaller for all other sectors. In terms of employment growth, all sectors of the economy showed positive employment growth rates during this ten-year period except for the Mining sector, which had a 1.4% per annum decline in employment. The Construction sector had the largest employment growth rate at 7.6% per year. Agriculture, Retail Trade, and Services had employment growth rates slightly greater than 4% per year. The remaining sectors (Manufacturing, Fi-

nance, Wholesale Trade, and Transportation/Public Utilities) had employment growth rates ranging from 1.2% to 2.4% (USDC 1998a and 1998c).

Trends in Earnings in Montana from 1987-1996: To accurately compare earnings across the ten-year period, all earnings have been adjusted to 1996 dollars using the Gross Domestic Product (GDP) Implicit Price Deflator (USDC 1998c). Earnings are defined to be labor and proprietors' earnings. The Services and Government sectors had earnings in excess of $1.8 billion. All other industries had earnings ranging from $40 million to approximately $1 billion. In terms of earnings growth, the Construction sector had the highest growth rate at 6.7% per year. The Mining sector had the only negative growth rate, with 0.5% decline in earnings per year. The Finance and Services sectors had industry earnings growth of approximately 5% per year. All other sectors had earnings growth ranging from approximately 1% to 3.6% (USDC 1998a and 1998c).

Employment Trends in North Dakota from 1987-1996: Similar to trends in Montana, the largest number employed in North Dakota was in the Services sector, followed by the Retail and Government sectors. The number employed was much smaller in all other sectors. In terms of employment growth, all sectors of the North Dakota economy showed positive employment growth rates during this ten-year period except for the Mining sector, which had a 0.8% per annum decline in employment. The Agricultural sector had the largest employment growth rate at 5.3% per year. Manufacturing had employment growth of 4.2%, which was the second highest during this period. Construction and Services had employment growth of 3.8% and 3.7%, respectively. Retail Trade and Transportation had employment growth of 2.8% and 2.1%, respectively. All other sectors (Wholesale Trade, Finance, and Government) had growth rates of 1% or less during the ten-year time period (USDC 1998a and 1998c).

Trends in Earnings in North Dakota from 1987-1996: All earnings figures have been adjusted to 1996 dollars using the GDP Implicit Price Deflator (USDC 1998c). Earnings are defined to be labor and proprietors' earnings. The Services and Government sectors had earnings in excess of $1.5 billion. All other industries had earnings ranging from $30 million to approximately $800 million. In terms of earnings growth, the Manufacturing sector had the highest growth rate at 4.9% per year. As was found in Montana, the Mining sector had the only negative earnings growth rate, with a 0.2% decline in earnings per year. Services, Construction, and Finance had earnings growth ranging from 3.6% to 3.8%. Retail Trade, Wholesale Trade, and Transportation had earnings growth ranging from 1.6% to 1.9%. Government experienced earnings growth of only 0.7% during this time period (USDC 1998a and 1998c).

Employment Trends in South Dakota from 1987-1996: Consistent with Montana and North Dakota, the largest number employed was in the Services sector, followed by the Retail and Government sectors. As in Montana and North Dakota, all sectors of the South Dakota economy showed positive employment growth rates during this ten-year period except for the Mining sector, which had a 1.5% per annum decline in employment. The Manufacturing sector had the largest employment growth rate at 5.5% per year. Agriculture had employment growth of 4.7%, which was the second highest during this period. Construction and Services were ranked third and fourth, with employment growth of 4.7% and 4.4%, respectively. Retail Trade and Finance had employment growth of 3.7% and 3.3%, respectively. Transportation (2.5%), Wholesale Trade (1.6%) and Government (0.5%) experienced the lowest employment growth in South Dakota during the time period (USDC 1998a and 1998c).

Trends in Earnings in South Dakota from 1987-1996: Earnings figures have been adjusted to 1996 dollars using the GDP Implicit Price Deflator (USDC 1998c). Earnings are defined to be labor and proprietors' earnings. As in Montana and North Dakota, the Services sector had the largest earnings, approximately $2.5 billion. The Services sector also had the top ranked earnings growth at 6% per year during the time period analyzed. Manufacturing (5.9%), Agriculture (5.2%), Finance (5.3%) and Construction (5.0%) had earnings growth that were at least 5% per year. As was found in Montana and North Dakota, the Mining sector had the only negative earnings growth rate, with 1.1% decline in earnings per year. Retail Trade and Wholesale Trade had earnings growth of approximately 3%. Transportation and Government had the lowest positive growth rates, with growth rates of 1.9% and 1.6%, respectively (USDC 1998a and 1998c).

Trends in Per Capita Income from 1987-1996: All three states have shown moderate real per capita income growth. All income figures have been adjusted for inflation. For Montana, the per capita income growth rate was 1.7% per year. North Dakota and South Dakota had identical per capita income growth rates of approximately 2.3% per year. By 1996, Montana had a per capita income level that was approximately $1,200 lower than North Dakota and $1,400 lower than South Dakota. Figure 3.2 displays real per capita income for the three states affected by this FEIS (USDC 1998a and 1998c).

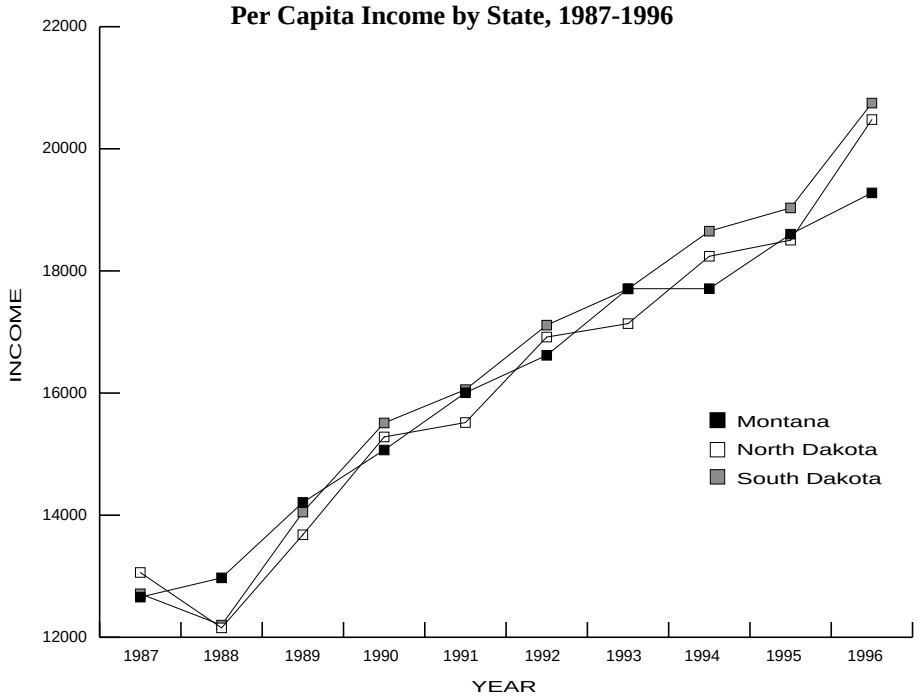
Summary of Economic Trends for Montana, North Dakota and South Dakota

In general, most economic sectors experienced moderate employment and earnings growth during the ten-year period analyzed. The only exception was the Mining sector,

which experienced negative growth rates in employment and earnings. This was due to declining metal commodity prices during this time period.

The Services sector is the largest employer and generator of earnings in Montana, North Dakota and South Dakota. In terms of growth rates, the Services sector outgrew all other economic sectors in South Dakota. In Montana and North Dakota, the growth rate in the Services sector was at least 4%. In general, these economies are following the national trend of the Services sector being the largest employer and generating high employment and earnings growth rates.

Figure 3.2
Per Capita Income by State, 1987-1996



Off-Highway Vehicle Economic Information

Sales of New Machines Used Off-Highway: Table 3.3 displays the sales of new ATV's, motocross bikes and enduros from 1990 to 1998. The annual sales growth rate for Montana was 6.7%. In North Dakota there was a 10.3% annual sales growth rate. In South Dakota the annual growth rate was 8.5%.

Table 3.3
Sales of New ATV's, Motocross Bikes and Enduros

Year	*Montana*	*North Dakota*	*South Dakota*
1990	2,700	900	1,200
1991	2,600	800	1,400
1992	3,200	900	1,300
1993	3,500	1,200	1,700
1994	NA	NA	NA
1995	3,500	1,534	1,842
1996	3,985	1,496	1,852
1997	4,260	1,674	2,344
1998	4,539	1,772	2,393

Source: 1990-1993 provided by Motorcycle Industry Council; 1995-1998 provided by American Honda.
NA denotes data is not available.

OHV Expenditures: Table 3.4 displays OHV expenditures for trucks, off-road motorcycles, and ATV's. OHV users expend approximately $1,460 per vehicle per year during off-highway vehicle use (Sylvester 1995). The largest expenditure is for gas and oil products, accounting for 47% of the total expenditure for the year. Equipment rental and purchase (15.6%), lodging (14.5%), and food and beverages (12.2%) combined account for approximately 42% of the total expenditure. The remaining five categories account for approximately 11% of the total expenditure.

Table 3.4
OHV Expenditures per Vehicle per Year

Expenditure Category	*Expenditure ($)*	*Percent of Total*
Lodging	211.31	14.5
Food & Beverages	177.56	12.2
Gas & Oil	686.36	47.0
Equip. Rental & Purchase	227.86	15.6
Clothing	18.13	1.2
Film, Gifts & Souvenirs	17.191.2	
Other Entertainment	34.40	2.4
Entrance & Event Fees	15.78	.1
Other	71.76	4.9
Total	$1,460.34	100.0%

Trends in Vehicle Registration: Table 3.5 displays the number of registered trucks, motorcycles, and ATV's in Montana, North Dakota and South Dakota during 1990 to 1998 (State Registration Bureaus, and Montana Fish, Wildlife and Parks, various years). The ATV and motorcycle registration information presented may be an understatement of the total number of motorcycles and ATV's in the three-state area. Motorcycles and ATV's are used as work equipment on farms and ranches and may not be registered. For South Dakota, the number of registered trucks and ATV's was estimated, since the number of trucks and automobiles was not reported separately and the number of registered ATV's was not available.

Table 3.5 Number of Registered Vehicles

	Montana		*North Dakota*			*South Dakota*		
Year	*Trucks*	*ATV's & Motorcycles*	*Trucks*	*Motorcycles*	*ATV's*	*Trucks*[1]	*Motorcycles*	*ATV's*[1]
1990	268,466	7,399	170,853	20,113	2,414	204,671	23,719	2,863
1991	265,884	8,404	168,658	19,121	2,054	204,221	24,133	3,134
1992	274,512	10,020	169,942	18,030	2,568	211,713	23,389	2,998
1993	291,038	11,729	173,045	17,498	2,651	219,769	26,173	3,542
1994	295,373	13,165	177,342	17,026	3,468	227,195	25,822	NA
1995	299,104	14,072	178,956	16,338	3,375	230,961	25,155	3,735
1996	299,341	15,352	180,527	15,738	4,219	232,354	24,704	3,749
1997	303,425	16,898	180,997	15,319	3,894	237,425	24,561	4,417
1998	304,696	18,953	182,430	15,372	4,920	NA	NA	4,484

NA denotes data is not available.
[1]Estimated values.

Trucks, motorcycles and ATV's can be considered the most likely vehicles used for off-highway use (Sylvester 1995). Based on a telephone survey conducted by the Bureau of Business and Economic Research at the University of Montana, Sylvester (1995) reports that approximately 9% of the registered trucks, 9% of the registered motorcycles, and 100% of the ATV's are used in off-highway situations. Based on the percentages reported by Sylvester and the vehicle registration information presented in Table 3.5, the following table was developed (Table 3.6).

Table 3.6 Estimated Number of Vehicles Used Off-Highway

	Montana		*North Dakota*			*South Dakota*		
Year	*Trucks*	*ATV's & Motorcycles*	*Trucks*	*Motorcycles*	*ATV's*	*Trucks*	*Motorcycles*	*ATV's*
1990	24,162	7,399	15,377	1,810	2,414	18,420	2,135	2,863
1991	23,930	8,404	15,179	1,721	2,054	18,380	2,172	3,134
1992	24,706	10,020	15,295	1,623	2,568	19,054	2,105	2,998
1993	26,193	11,729	15,574	1,575	2,651	19,779	2,356	3,542
1994	26,584	13,165	15,961	1,532	3,468	20,448	2,324	NA
1995	26,919	14,072	16,106	1,470	3,375	20,786	2,264	3,735
1996	26,941	15,352	16,247	1,416	4,219	20,912	2,223	3,749
1997	27,308	16,898	16,290	1,379	3,894	21,368	2,210	4,417
1998	27,423	18,953	16,419	1,383	4,920	NA	NA	4,484

NA denotes data is not available.

For Montana, the estimated number of trucks used in off-highway applications increased from 24,162 to 27,423 during the years 1990 to 1998. The ATV and motorcycle group increased from 7,399 in 1990 to 18,953 in 1998. (Note: The ATV and motorcycle information used was compiled by Montana Fish, Wildlife and Parks using Montana Department of Justice, Title and Registration Bureau data (Walker 1999). The motorcycle and ATV information was adjusted to reflect off-highway use by Montana Fish, Wildlife and Parks and does not need further adjustment using the percentages reported by Sylvester (1995).)

In North Dakota, the estimated number of trucks used off highway increased from 15,377 in 1990 to 16,419 in 1998. The number of motorcycles used off highway decreased by approximately 500 motorcycles. Estimated ATV's used off highway showed a steady increase from 1990 to 1998. By 1998, the estimated ATV's used off highway had increased to 4,920.

In South Dakota, trucks used off highway increased from 18,420 in 1990 to 21,368 in 1997. Estimated motorcycles used off highway showed an increase of only 75 vehicles during the eight-year time period. ATV's estimated to be used off highway increased by 1,621 vehicles.

ENVIRONMENTAL CONSEQUENCES

The effects of the alternatives were analyzed for Montana, North Dakota and South Dakota. All counties for each state were included in the impact analysis, even though some of the counties may not contain FS or BLM land.

Economic impacts were estimated at the state level by vehicle type. Two vehicle types were analyzed: In one group were off-highway motorcycles and ATV's and in the other group trucks used in off-highway applications. Economic impact results will be presented for the No Action Alternative and for the action Alternatives 1 through 5.

This section will present projected number of vehicles, the economic impact model, and results.

Projected Number of Vehicles

Figures 3.3 through 3.5 display the actual and projected numbers of motorcycles, ATV's and trucks used in off-highway applications. The projected number of vehicles was estimated based upon the relationship between the number of registered vehicles and population. Overall, there is an upward trend in the total numbers of motor-

Figure 3.3
Actual and Projected Number of OHV's and Trucks
MONTANA

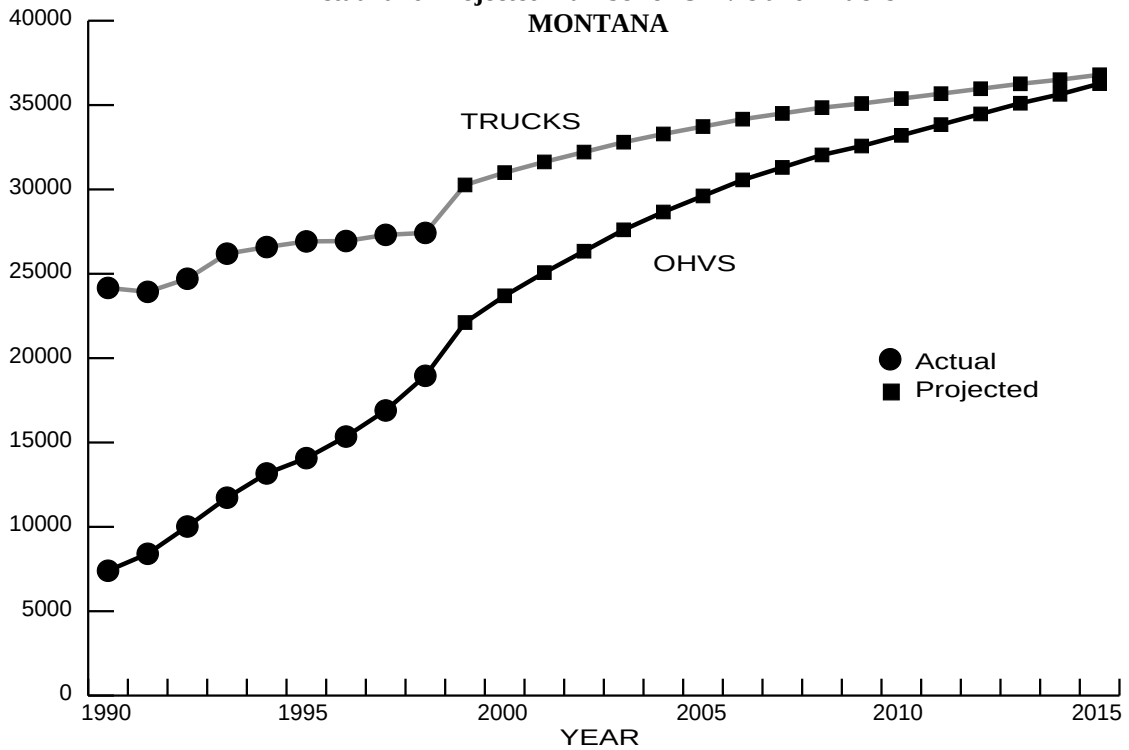


Figure 3.4
Actual and Projected Number of OHV's and Trucks
NORTH DAKOTA

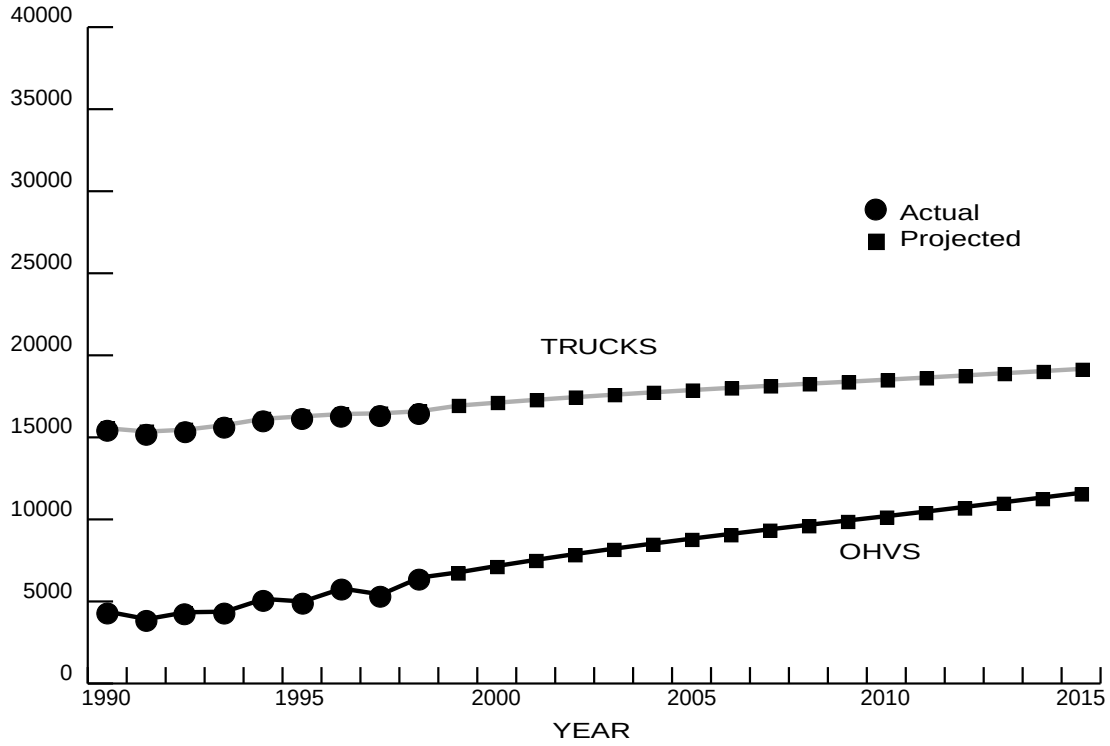
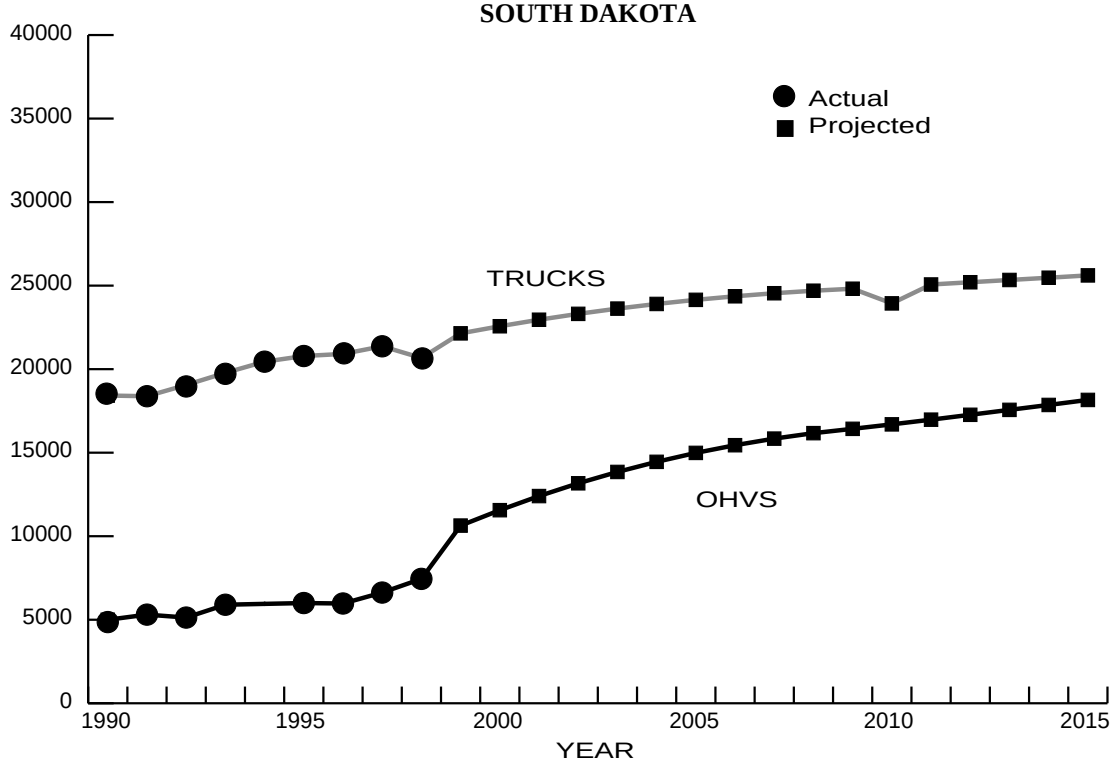


Figure 3.5
Actual and Projected Number of OHV's and Trucks
SOUTH DAKOTA



cycles, ATV's and trucks in the three states. Between the years 2000 and 2015, the three states will experience population increases according to the U.S. Bureau of the Census (USDC 1998b). Since the projections are based on population, an upward trend in motorcycles, ATV's and trucks is expected. A separate study also estimated increased off-road driving for the Rocky Mountain area (Cordell and others 1999).

In order to estimate economic effects, we need to have an approximate estimate of the number of motorcycles, ATV's and trucks that would be affected by this proposal. Since quantifiable data is lacking for actual use numbers, we need to take existing information that is available (number of registered vehicles from State vehicle registration bureaus and past research, Sylvester 1995), and make specific assumptions based on field observations to derive information that is lacking. Specifically, we need to make assumptions concerning the percentage of registered vehicles that are used in cross-country travel, how many might discontinue using their vehicles in the three-state area because of this proposal, and percentage of vehicles used in off-highway activities in North and South Dakota by using Sylvester's (1995) study.

This is a very broad analysis, and the estimated number of jobs and associated income are approximations. However, this approach will allow us to view the possible relative effects of this proposal.

Economic Impact Model

Input-output analysis was used to estimate employment and income effects. Input-output analysis is basically an accounting system that describes dollar or volume flows of commodities between all sectors of an economy. IMPLAN Pro, an input-output modeling system, was used to estimate input-output models for each state using 1995 economic data, the most recent IMPLAN data available (Minnesota IMPLAN Group, Inc. 1997).

No Action Alternative

The No Action Alternative assumes that there would be no effect on vehicles used in off-highway applications. The projected number of vehicles for the years 2005 and 2015 are displayed in Table 3.7. The jobs and employee compensation impacts shown in Table 3.8 are for the years 2005 and

Table 3.7 Projected Number of OHV's and Trucks for the Years 2005 and 2015

	Montana		*North Dakota*		*South Dakota*	
Vehicle Type	***Year 2005***	***Year 2015***	***Year 2005***	***Year 2015***	***Year 2005***	***Year 2015***
OHV's	24,597	36,249	8,927	11,718	14,976	18,145
Trucks	33,727	36,797	17,710	18,998	24,149	25,612

Table 3.8 Employment and Income Impacts for No Action Alternative

		No Action			
		Year 2005		***Year 2015***	
State Affected	***Vehicle Type***	***Jobs***	***Emp. Comp.***	***Jobs***	***Emp. Comp.***
Montana	OHV's	1,110	$15,615,000	1,350	$19,125,000
	Trucks	1,250	$17,794,000	1,370	$19,414,000
	Total	2,350	$33,409,000	2,710	$38,539,000
North Dakota	OHV's	320	$ 4,703,000	420	$ 6,173,000
	Trucks	640	$ 9,329,000	680	$10,008,000
	Total	960	$14,032,000	1,100	$16,181,000
South Dakota	OHV's	680	$ 8,114,000	820	$ 9,830,000
	Trucks	1,090	$13,083,000	1,160	$13,876,000
	Total	1,770	$21,197,000	1,980	$23,706,000

Note: The OHV category consists of off-road motorcycles and ATV's.

2015. The number of jobs and level of employee compensation includes the direct, indirect and induced impacts that result from the number of vehicles used in off-highway applications in the three states.

In the year 2005, there would be approximately 960 jobs in North Dakota attributable to off-road motorcycles, ATV's and trucks, with approximately $14 million in employee compensation. In South Dakota, there would be approximately 1,770 jobs and $21 million in employee compensation attributable to off-road motorcycles, ATV's and trucks. Off-road motorcycles, ATV's and trucks would have the largest influence in Montana, with approximately 2,350 jobs and $33.4 million in employee compensation.

In the year 2015, the jobs and employee compensation effects will have increased due to the projected increases in off-road motorcycles, ATV's and trucks. An estimated 1,100 jobs in North Dakota, 1,980 jobs in South Dakota, and 2,700 jobs in Montana would be attributable to off-road motorcycles, ATV's and trucks. Employee compensation would be approximately $16 million in North Dakota, $23.7 million in South Dakota, and $38.5 million in Montana.

Alternative 1

Alternative 1 assumes the worst-case scenario, that people would leave the sport because they would no longer travel cross-country with a motorized wheeled vehicle. If we assume 1% of the vehicles would no longer be used in the three-state area, the estimated effects are shown in Table 3.9. (Note: It is important to realize that the results in Table 3.9 can be adjusted to reflect whatever assumed vehicle displacement is desired. If it is assumed that 10% of the vehicles would no longer be used, then the results in Table 3.9 are simply multiplied by 10).

Using the same assumptions, projections for the year 2005 indicate that a reduction of approximately 9 jobs in North Dakota, 18 jobs in South Dakota, and 24 jobs in Montana would occur. Employee compensation would be reduced by approximately $140,000 in North Dakota, $212,000 in South Dakota, and $344,000 in Montana. The employment and income reductions occur in sectors of the economy, such as hotel and lodging, restaurants, and gas stations, as well as others (see Table 3.4 for the OHV expenditure profile).

In the year 2015, the estimated jobs and employee compensation effects are displayed in Table 3.9. In North Dakota, the job reduction due to the assumed 1% decrease is approximately 11 jobs. The corresponding reduction in employee compensation in North Dakota is approximately $162,000. In South Dakota, the job loss is estimated to be 20 jobs, with employee compensation reductions of approximately of $237,000. In Montana, the job loss is approximately 27 jobs, with employee compensation reductions of approximately $386,000. Once again, employment and income reductions occur in economic sectors, such as the hotel and lodging sector, restaurants, and gas stations, as well as others (see Table 3.3 for the OHV expenditure profile).

Table 3.9 Change in OHV and Truck-Related Employment and Income Impacts Between No Action Alternative and Alternative 1

		No Action			
		Year 2005		*Year 2015*	
State Affected	*Vehicle Type*	*Jobs*	*Emp. Comp.*	*Jobs*	*Emp. Comp.*
Montana	OHV's	-11	-$156,000	-13	-$191,000
	Trucks	-13	-$178,000	-14	-$194,000
	Total	-24	-$344,000	-27	-$386,000
North Dakota	OHV's	-3	-$ 47,000	-4	-$ 62,000
	Trucks	-6	-$ 93,000	-7	-$100,000
	Total	-9	-$140,000	-11	-$162,000
South Dakota	OHV's	-7	-$ 81,000	-8	-$ 98,000
	Trucks	-11	-$131,000	-12	-$139,000
	Total	-18	$212,000	-20	-$237,000

This alternative could possibly increase administrative costs to the permittee and lessee by requiring them to obtain authorization. If authorization is denied, the permittee will not be allowed to use a motorized wheeled vehicle for cross-country travel, possibly leading to higher operational costs.

Alternatives 2 through 5

The following scale illustrates the relative economic effects of the various alternatives. The scale indicates that Alternative 1 is the most restrictive alternative from an economic aspect, and the No Action alternative is the least restrictive. Quantitative effects for Alternative 1 and the No Action is provided in Table 3.9. Alternatives 2 through 5 are discussed in relative terms using the scale shown in Figure 3.6.

Alternative 2 could potentially have negative impacts on employment and income, since game retrieval is only open on part of the Custer National Forest and on certain BLM lands in central and eastern Montana. However, the employment and income impacts are not expected to be as large as those estimated for Alternatives 1 and 5.

Alternative 3 keeps the Kootenai, Flathead, and Bitterroot National Forests open to all OHV use. This alternative is not as restrictive as Alternatives 1, 2, and 5. The economic effects are expected to be less than those for Alternatives 1, 2, and 5, but greater than those expected from Alternative 4.

Alternative 4 would have economic effects more closely resembling the No Action alternative, since the use restriction is only seasonal. There may be minor reductions in employment and income attributable to this alternative, but the reductions are not expected to be as large as the possible effects attributable to Alternatives 1, 2, 3 or 5.

Alternative 5 would have economic effects more closely resembling the estimated effects for Alternative 1.

Cumulative Effects

Vehicle registration information indicates that ownership of off-road motorcycles, ATV's and trucks has substantially increased during the past decade. This trend is expected to continue given the expected population growth projected by the U.S. Census Bureau. With the expectation of increasing use, the potential for motorized wheeled cross-country travel in the future would continue to grow.

CULTURAL RESOURCES

AFFECTED ENVIRONMENT

Introduction

Cultural resources is a broad term that refers to cultural properties and traditional lifeway values. A cultural property may be the physical remains of archaeological, historic or architectural sites and/or a place of traditional cultural use. Traditional lifeway value refers to the connection between the landscape and a group's traditional beliefs, religion or cultural practice. Because these resources are nonrenewable and easily damaged, laws and regulations exist to help protect them.

The National Historic Preservation Act (NHPA) and its implementing regulations require that federal agencies consider the effects of their undertakings on historic properties. The term historic properties refers to cultural properties that have been determined eligible for the National Register of Historic Places (NRHP). Federal agencies must consider American Indian traditional use, belief system, religious practices and lifeway values as directed by the Archeological Resources Protection Act of 1979 (ARPA), the NHPA, the Native American Graves Protection and Repatriation Act (NAGPRA) and the American Indian Religious Freedom Act (AIRFA). Traditional American Indian cultural properties and natural features are potentially eligible to the NRHP. Contemporary use sites for traditional or cultural purposes are provided protection under AIRFA. Additionally, rights reserved under treaties may possess an inherent measure of resource protection.

Federal agencies consider the effects of their management activities on historic properties by first conducting a field survey to locate cultural properties. As a result of these inventories, over 26,000 cultural properties have been recorded on public lands administered by the BLM and FS

Figure 3.6
Relative Economic Effects of Alternatives

```
Alt. 1     Alt. 5  Alt. 2   Alt. 3                Alt. 4       No Action
|---------------|----|---------|---------------------------|---------------|
Most                                                                Least
Restrictive                                                         Restrictive
```

in Montana, North Dakota and South Dakota. Of these, 2,323 were originally considered eligible for nomination to the National Register and 358 are actually listed on the Register. The remainder have either been determined not eligible or have not been evaluated.

The over 26,000 cultural properties occur on various landscapes and within all ecosystems represented in the analysis area, from the high alpine tundra and deep mountain forests of western Montana to the vast open grassland prairie and arid badlands of North Dakota and South Dakota. Site types range from prehistoric sites such as campsites, stone rings, quarries, eagle trapping lodges, and bison jumps to historic sites such as mining towns, homesteads, trading posts, military forts, and battlefields. Connecting these sites and environments are a network of historic and ancient Indian trails, explorer passages, military routes, railroad beds, and wagon roads.

General Prehistoric and Historic Occupation

Information accumulated to date demonstrates the long and diverse series of human occupation that spans at least the last 15,000 years. Tribal groups known to use the analysis area prehistorically, historically, and currently include three affiliated tribes (Mandan, Hidatsa, and Arikara), Northern Cheyenne, Standing Rock Sioux, Assiniboine, Arapaho, Blackfoot, Crow, Oglala Sioux, Cheyenne River Sioux, Rosebud Sioux, Santee Sioux, Turtle Lake Chippewa, Chippewa-Cree, Salish, Kootenai, Pend d'Oreilles, Kalispel, Shoshone, Bannock, Gros Ventre and Kiowa Tribes.

Contact with European cultures altered the human occupation with the influx of European diseases, assimilation efforts, and the resultant change in tribal cultural integrity with the onset of the reservation system. As non-Native Americans settled the area, they focused on occupations such as fur trapping and trading, mining, logging, ranching, homesteading and farming. Land ownership patterns developed over time, including the development of the FS and the BLM. Remnants of all these activities and events, both historic and prehistoric, can be found throughout the analysis area.

Existing Impacts of OHV Use

With the popularity of OHV use beginning just after World War Two and the availability of new, more versatile ATV's in the 1980's, access to more remote areas of public lands is possible. This new wave of motorized use has introduced more human presence in these remote areas and has left a mark on the landscape through the creation of introduced sounds, dust, smells, visual intrusions, and the creation of roads and trails through repeated use.

OHV impacts to cultural resources and or traditional use areas have occurred on the Kootenai, Beaverhead-Deerlodge, Gallatin and Lewis and Clark National Forests, Dillon Field Office, and Dakota Prairie National Grasslands. These impacts to the archaeological record include artifact crushing and breakage, erosion, soil compaction, and loss of ground cover. Introduction of audio, scent, and visual effects have altered some of the traditional use areas. Expanded access to remote areas has increased vandalism of the cultural resource and general degradation of the historic and natural landscape.

The nature of terrain and landscape crossed by OHV's is relative to both the type and number of sites impacted by this activity, and the type of effect the sites experience. For the Rocky Mountain Region, the mountainous terrain was as difficult to traverse for prehistoric and historic groups as it is for OHV users today. Traffic is concentrated along the corridors that often follow streams and rivers, the same areas of high probability for cultural site locations. Rutting and erosion of the sites located along these corridors has impacted sites in the Beaverhead-Deerlodge National Forest. In the Whitetail-Pipestone area, OHV users have created a spiderweb network of trails that crisscross highly erosive granitic soils. This motorized wheeled cross-country travel has affected cultural sites and other resources to such an extent that the BLM and FS instituted an emergency area closure in the spring of 1998.

Mining towns clinging to the steep slopes of the mountains were accessed in the past by trails and roads used by OHV's today. This access has encouraged the pioneering of new trails to the more remote features of these ghost towns and has contributed to increased site collection and vandalism of historic trash dumps and buildings on the Lewis and Clark National Forest (R. Newton, pers. comm. 1999). This use of OHV's, especially ATV's, allows people to cover more ground off roads and trails and has increased exposure of the more remote cultural sites to vandalism and illicit collecting.

Substantial impact to cultural sites from motorized wheeled cross-country travel has been observed during the last twelve years along the drawdown zone of Lake Koocanusa on the Middle Kootenai River Archaeological District on the Kootenai National Forest. Archaeological monitoring of the sites from 1985 to 1993 revealed that 10% of the site within the district displayed damage from OHV use, with 777 incidents observed over the eight-year monitoring period. Two types of damage were recorded: illegal collecting and physical impacts from OHV travel across the sites. In numerous cases, both types of impacts were observed, with several sites exhibiting numerous/multiple incidents. These cultural sites are also greatly valued by the Confederated Salish and Kootenai as vestiges of their heritage, and

the entire Lake Koocanusa is considered an area of high cultural sensitivity (Timmons 1999). Site-specific analysis of the drawdown zone of Lake Koocanusa is currently being addressed in the Rexford District Recreation Management Plan and is not part of the affected environment.

Trails are not necessary for travel upon the alpine plateaus of the Big Snowies on the Lewis and Clark National Forest. In one instance, people observed motorcycle use across cultural sites, which was later reported to the FS by several people when they were hiking in the Big Snowy Wilderness Study Area. These same qualities were also sought by American Indians in the past who walked to these high plateaus, possibly seeking sacred places for spiritual guidance and leaving behind the cultural sites we record today. These sites, as well as traditional use areas, are easily damaged by OHV crossing, rutting, and subsequent erosion.

The Crow have long been concerned about the lack of respect many recreationists, particularly snowmobile users and OHV users, in the Crazy Mountains on the Gallatin and Lewis and Clark National Forests (Burton Pretty On Top, pers. comm. 1999). The mountains are considered especially sacred to the Crow and contain numerous religious and burial sites. Access from motorized wheeled cross-country travel has interrupted the silence needed for traditional use practices and, in addition to the fumes and erosion, displays a lack of respect for this sacred area.

For the Northern Plains areas, the higher use and easy accessibility is evident by the greater number of sites found east of the Rockies. Bison kill sites, processing areas, campsites, tepee rings, and historic trails are a few of the numerous types of sites recorded in these open, rolling prairies easily accessed by OHV's. Quick and easy access to these locations has resulted in increased illicit collection, rutting, and erosion of many of these sites previously inaccessible except by foot or horse.

Proven to be an attraction for OHV users are the isolated buttes and badlands of North Dakota and South Dakota. The Blue Buttes, located on the Dakota Prairie National Grasslands, are considered sacred to the Low Hat Clan of the Hidatsa and have been damaged to some degree by OHV use. The Hidatsa have used these buttes for hundreds of years as a fasting area where the qualities of remoteness, quiet and solitude are necessary for their traditional use activities. Four-wheel drive trucks have recently been used to try and climb Chimney Butte, introducing noise and exhaust fumes into the area and leaving behind ruts and scars on the landscape (M. Floodman, pers. comm. 1999).

In the badlands, ATV and motorcycle tracks have been found along the Custer/Sully Trail. Ruts from the wagons accompanying Custer on his ill-fated trip to the Battle of the Little Bighorn in 1876 are still visible in the badlands and are threatened by increased OHV use of this area.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

Prehistoric and historic cultural resources are a nonrenewable resource. Significant cultural resources have many values, including their use to gather scientific information on human culture, history, interpretive and educational value, values associated with important people and events of significance in our history, and often aesthetic value, as in a prehistoric rock art panel or an historic landscape. OHV use on public lands is one of many land use activities that have disturbed cultural resources within the analysis area.

Since the 1960's when recreational OHV's began to increase in popularity, there have been several studies conducted that documented the impacts of OHV use on the environment and, particularly, archaeological sites (USACOE 1992, Lyneis, Weide and Warren 1981). These impacts can be described as direct and indirect. Direct impacts include the crushing, breaking, and scattering of cultural material when OHV's are driven through and across a site, soil compaction from vehicle wheel pressure, and the intensification of soil erosion processes by the removal of protective ground cover, such as vegetation and natural clutter, especially when ruts and trails are formed from repeated crossings. Much of this may happen without the OHV user even being aware of the damage. Many of the significant prehistoric sites found in Montana, North Dakota and South Dakota are very shallowly buried, with subsurface cultural material occurring as little as 30 to 40 cm below the present ground surface (M. Ryan, pers. comm. 1999). These sites are particularly vulnerable to disturbance from OHV-caused ruts and trails.

Of particular concern are archeological sites that are crossed by OHV user-created roads and trails. Most designed and planned roads and trails constructed since 1979 have been subject to compliance with the various historic preservation laws. OHV user-created roads and trails, on the other hand, have not been reviewed and the locations are often based on convenience, short cuts and/or challenge. As a result, these OHV user-created tracks have begun to show up on archaeological sites in all parts of the analysis area, and continued use of these roads and trails may continue to damage cultural resources. However, the agencies do have the authority to close a specific road, trail or area that has considerable adverse cultural effects
(36 CFR 295.5 and 43 CFR 8342).

Indirect impacts include the use of OHV's to access, and then loot or destroy archaeological sites. This form of destruction, which includes artifact collecting and souvenir hunting, is considered vandalism and is intentional. Few prehistoric or historic resources are in themselves portable, for these cultural resources are rarely just the objects. The resource is the information contained in the cultural property, and the removal of objects from their original surrounding generally destroys that information. Illicit collection, such as souvenir and artifact collecting, and vandalism reduces the information to just the object - stone tools, arrowheads, glass bottles, etc. in a drawer, can or pocket. OHV use by vandals also allows quick, often undetected collection of the information/object and, to a larger degree, artifacts too heavy to transport by foot can now be transported by OHV and for much longer distances.

The incidence of vandalism and illicit collection is also very much influenced by the level of visitation and access to certain areas. Greater visitor use to some areas has led to the increase of vandalism, illicit collection, littering and disturbance to cultural sites. Vandalism has also increased in previously inaccessible areas, due in part to the fact that many visitors now use OHV's that are capable of reaching these formerly isolated areas. Vandalism of rock art panels has increased considerably over the last twenty years on the Custer National Forest, which may be due in part to the increased availability of OHV's that can access these remote areas. While cultural properties situated along designated trails and road corridors can be signed, monitored, patrolled and protected, the impacts outside of these areas are largely uncontrolled and the extent of impact unknown.

Increased accessibility and visitation are also important criteria for evaluating the potential for destruction or vandalism of the traditional cultural, natural and historic landscapes. Most contemporary use, before the advent of OHV's, seemed to be limited to roads and trails and their immediate environs. Comparatively inaccessible sites were naturally protected from direct and indirect impacts. These previously inaccessible areas, often sought for their remoteness, solitude, and pristine qualities, have been directly affected by the introduction of motorized sounds, dust, smells, and user-created roads and trails. Expanded access and increased visitation may impede some Indian groups in the practice of their traditional cultural use.

No Action Alternative

The use of a variety of OHV's has been a key factor in the increased recreational use of public lands over the last thirty years and the incremental increase of direct and indirect impacts to the cultural resource. Continued development of user-created trails would increase the likelihood that more unrecorded and recorded sites would be damaged. Isolated cultural resources would continue to be more and more accessible as OHV technology improves, and thus become more vulnerable to direct impacts.

North Dakota, South Dakota and eastern Montana are highly accessible, either as a result of roads and trails or gentle topography. A substantial portion of the cultural resources in these areas must be considered unprotected from user-created roads and trails, and vandalism. This alternative does not offer any means (except emergency closures) of reducing that access, and current degradation of the heritage resources as a result of OHV traffic would continue. Impacts would continue to known and unknown sites by further creation of user-created roads and trails.

Cultural resources along Delmoe Lake on the Beaverhead-Deerlodge National Forest would continue to suffer damage as increased and cumulative use of these areas takes its toll on the cultural resource. Cultural resources located along the mountain corridors and on shallow soils would continue to be degraded from OHV traffic.

Traditional Native American use areas in the Blue Buttes and the Crazy Mountains would continue to be affected by the introduction of noise, dust, fumes, visual impacts, and increased access/visitation.

Alternative 1

If motorized wheeled cross-country travel is restricted yearlong, any new direct damage to heritage resources from motorized wheeled cross-country travel should be minimized. There should be no increase in new user-created trails or roads that may damage sites.

Prohibiting motorized wheeled cross-country travel could protect sites from vandalism where OHV's are used for access. If restrictions to roads and trails leave substantial, contiguous portions of public lands isolated from motorized travel, the agencies would expect vandalism to diminish, for accessibility is one of the major factors in the rate of vandalism. This would restore some areas and landscapes to former remoteness and protect the natural solitude, isolation and quiet necessary for the continuation of traditional cultural practices.

Alternatives 2 and 5

These alternatives would essentially have the same effects to cultural resources as Alternative 1. The exception for camping 300 feet from the road would provide less protection to the cultural resources than Alternative 1. In Alternative 2, game retrieval should not, in most instances, affect the cultural resources.

Alternative 3

Restricting use to certain areas does confer some protection of the cultural resource in those areas, similar to Alternatives 1 and 2, if the network of roads and trails does not increase or expand. There is reason to believe that the network of roads and trails would continue to increase in areas classed as less restrictive, and that currently recorded sites and previously inaccessible sites would continue to suffer from OHV damage.

Directing OHV use from one area to another, while protecting some areas, may displace the impacts to those areas not subject to the restriction. While restricting use in the prairie areas and in eastern Montana mountainous areas, which may actually be easier to "heal" due to topography and climate, OHV users may shift their use to the mountainous areas in western Montana where damage may be long-term. In addition, the more mountainous areas contain cultural sites concentrated along the very corridors where OHV's would be utilized more frequently. Increased visitation to these areas may also increase the incidence of vandalism in these areas. For this alternative, fragile areas along the lakes, river and stream corridors may be subjected to more vandalism. By limiting access in all but the western forests, this alternative offers some protection for traditional cultural areas, such as in the Crazy Mountains and Blue Buttes.

Alternative 4

Restricting use seasonally would not provide any additional protection from direct or indirect effects of motorized wheeled cross-country travel on cultural resources. The amount of OHV damage that would occur to sites under this alternative is directly proportional to the amount of unrestrictive use of OHV's that continues and spreads to new areas. The network of roads and trails would continue to increase in these areas despite seasonal use restrictions, and new user-created trails would continue to be created, opening up new areas to OHV use. While there may be fewer ruts created by crossing sites during wet seasons and the effects may somewhat decrease with a decline in use, this alternative will have similar effects to cultural resources as the No Action Alternative.

Cumulative Effects

Cumulatively, the No Action Alternative would lessen the number and integrity of known and unknown sites within the analysis area. Over time, along with natural factors and management activities, fewer cultural resources would remain intact, and those remaining would continue to be degraded. Fewer and fewer areas appropriate and available for traditional cultural practices would remain.

Cumulatively under Alternative 1, as site-specific plans are developed, cultural resources along roads and trails would be inventoried and protected. Cultural resources located off these existing corridors would retain their relative site integrity. Few cultural resources would be degraded as a result of motorized wheeled cross-country travel.

Under Alternative 2 and Alternative 5, the cumulative effects would be the same as Alternative 1.

Cumulatively, Alternative 3 would lessen the number and integrity of known and unknown sites within the western forests and, along with natural factors and management activities, over time would lead to fewer intact cultural resources, and those remaining may continue to be degraded.

Under Alternative 4, the cumulative effects would be the same as the No Action Alternative.

Comparison of Alternatives

The No Action Alternative and Alternative 4 would cause the greatest direct and indirect impacts to the cultural resources in the analysis area. These alternatives would lessen the number and integrity of known and unknown sites within the analysis area and, along with natural factors and management activities, in time would lead to fewer undisturbed cultural resources. Fewer areas appropriate and available for traditional cultural practices would remain. Historic and natural landscapes would be degraded.

Alternative 3 would cause direct and indirect impacts to the cultural resources and historic natural and traditional use landscapes located on the Kootenai, Flathead, and Bitterroot National Forests but would protect, in part, those cultural resources, traditional values and landscapes in the eastern forests and grasslands.

Alternative 1, 2 and 5 offer the most protection for the cultural resources in the whole analysis area and ensure that places of importance for their natural and historic landscape and traditional use are preserved.

PALEONTOLOGICAL RESOURCES

AFFECTED ENVIRONMENT

Paleontological resources or fossils, are remains, traces, or imprints of plants and animals preserved in rocks. Fossils allow the interpretation of ancient environments and envi-

ronmental change and provide direct evidence of the origin and evolution of life.

Fossil-bearing strata in Montana, North Dakota and South Dakota are thousands to billions of years old, ranging from the more recent Holocene Epoch to the Precambrian Eon. During the Precambrian and early Paleozoic, life arose and diversified. More recently, life has undergone a series of extinctions and major reorganizations.

Public lands of Montana, North Dakota and South Dakota hold richly fossiliferous strata that chronicle the history of life in North America. A growing interest in the lifestyles and sudden demise of dinosaurs draws specialist and amateur collectors alike to Cretaceous outcrops of eastern Montana (Judith River area) and western South Dakota (Grand River area). Motorized wheeled cross-country travel, which poses a threat to fossiliferous outcrops, is not restricted in either area.

ENVIRONMENTAL CONSEQUENCES

No Action Alternative

Under this alternative, OHV operators would continue to have access to remote outcrops and collecting localities. These sites are vulnerable to destruction by off-road travel. Motorized wheeled cross-country travel allows vandalism of fossils that might otherwise be too heavy or awkward to pack out on foot.

Alternatives 1, 2, and 5

Under these alternatives, motorized wheeled cross-country travel would not be allowed. Potential collectors could not reach remote fossil locations with the use of OHV's. In addition, unintentional destruction of fossils by OHV enthusiasts would be minimized or prevented.

Alternative 3

Under this alternative, motorized wheeled cross-country travel would be restricted in the plains and prairies, which are the most sensitive areas for paleontological resources. Impacts would be comparable to Alternatives 1, 2, and 5. Although OHV use is permitted on the Kootenai, Flathead, and Bitterroot National Forests, such use is not expected to result in damage to or vandalism of paleontological resources because travel in these areas is limited by steep terrain and dense vegetation.

Alternative 4

Under this alternative, motorized wheeled cross-country travel is permitted during the dry season (June 15 through August 31) and when the ground is snow-covered or frozen (December 2 through February 15). Impacts during the spring and summer would compare with the No Action Alternative (i.e., damage and vandalism may result from OHV use). Minimal impacts are expected when the ground is frozen and snow-covered.

Cumulative Effects

Cumulative effects would be greatest under the existing management condition, that is, under the No Action Alternative. All other alternatives would restrict access to remote paleontological sites and would reduce cumulative effects. Alternatives 1, 2 and 5 would provide the best protection (fewest cumulative impacts) for paleontological resources.

VEGETATION AND WEEDS

AFFECTED ENVIRONMENT

Vegetation

This section describes in more detail the characteristics of the three ecological regions discussed earlier in Chapter 3. These regions are the Rocky Mountain Region, the Great Plains Region, and the North American Prairie Region (Figure 3.1). In addition, this section describes invasive exotic weeds, native plant communities and threatened, endangered, and sensitive plants.

Ecological Regions

Rocky Mountain Region: The Rocky Mountain Region can be subdivided into three provinces. The first is the Northern Rockies Province, which is characterized by rugged mountains separated by flat valley bottoms. Elevational relief within this province ranges from 3,000 feet to over 9,000 feet. Temperatures can be severe, but are often moderated by coastal influences. Precipitation is generally greater than the rest of the Rocky Mountain Region and averages between 16-100 inches annually. Most of the moisture comes in the fall, winter, and spring. Summers are relatively dry.

Soils are less rocky than surrounding mountain provinces in the west and have a distinct volcanic influence. The excellent soil conditions and precipitation result in lush vegetation, which more closely resembles the Pacific Northwest. Prior to European settlement much of this area was almost entirely forested. There is very little land higher than timberline and no lower timberline is evident naturally, but has been created by conversion to agriculture and other land conversion efforts. Today, the most common forest types are Douglas-fir, grand-fir and cedar-hemlock. A lush cover

of ferns, forbs, and regenerating trees characterizes the forest understory.

The second province is the Middle Rockies. Elevations generally range from 3,000 feet to almost 11,000 feet. The BLM and FS lands are moderately steep to very steep mountains. The lower elevations include some gentler foothills. The climate is highly variable, depending on local elevation and aspect. In general, valleys are warmer and drier, with annual precipitation of 15-25 inches annually. Higher mountain ranges are cooler and precipitation is 70 inches or more annually, with 40-60% coming as snow.

The aridity and evaporation rates of the Middle Rockies sharply define forest and nonforest areas. Both upper and lower tree lines are common. Low and middle elevation forests on south and west facing slopes are dominated by sagebrush and semidesert conditions. The opposite aspects typically consist of Douglas-fir and ponderosa pine. Lodgepole pine is common throughout this region on a variety of aspects. At higher elevations, Engelmann spruce and subalpine fir are the most common species.

The third province is the Southern Rockies, which is confined to south-central Montana and the Yellowstone Plateau. Elevations range from 5,000 feet to 11,000 feet and more. The climate is highly variable and depends on local elevation and aspect. Valleys are generally warmer and drier, with annual precipitation of 15-25 inches. Higher mountain ranges are cooler and precipitation is 40 inches or more per year, with the majority coming as snow.

The flora of this region is highly variable. Constant changes in elevation and aspect results in a large-scale mosaic of conifer forests, hardwoods, and shrub/grasslands. Spruce and fir often dominate the highest elevation forests with lodgepole and aspen at middle elevations, and Douglas-fir in the lower forested zone. Other less common forest types include limber pine and whitebark pine.

Great Plains Region: Three provinces occur in this region. The Great Plains Province comprises most of eastern Montana and the western parts of North Dakota and South Dakota. It is characterized by rolling plains and tablelands and generally flat to moderate slopes. The badlands across the northern tier of central to eastern Montana and western North Dakota are exceptions. They range in elevation from below 2,000 feet to about 5,500 feet. Average annual precipitation ranges from 10-20 inches with 20-50% coming in the form of snow and the remainder as spring and summer thunderstorms. The vegetation is composed of a wide variety of grasses, forbs, small shrubs (sagebrush and rabbitbrush) and sometimes a few scattered trees. The lack of forested environments is due to the rain shadow effect of the Rocky Mountain Range to the west.

The Intermountain Semidesert Province covers a very small portion of south-central Montana just east of Yellowstone National Park. Elevations range from 3,700 and 4,700 feet. It is comprised of dissected plains, terraces and fans formed in shale, siltstone and sandstone overlain by some alluvium and lacustrine sediment. Annual precipitation ranges from 5-12 inches per year. The vegetation is composed primarily of sagebrush steppe and some foothills prairie.

The third province is the Great Plains Steppe. It covers the eastern portions of North Dakota and South Dakota except for an eastern strip. It has very little topographical relief that ranges from 1,000 to 2,000 feet in elevation. It is characterized by flat and rolling plains formed from glacial drifts and outwash plains, except of the Missouri River where there are loess and sand deposits. Annual precipitation is between 15-20 inches, with 30-40% coming in the winter as snow. Drought is less frequent and severe than further west. Short and tall grass species comprise the vegetation. Woody vegetation is rare except for cottonwoods in the floodplains.

North American Prairie Region is the same as described earlier in Chapter 3.

Invasive Exotic Weeds

The invasion of native plant communities by exotic plant species is a threat nationwide with ecological and economic consequences (National Strategy for Invasive Plant Management). Weeds are spread many ways: animals (livestock, birds, or other wildlife), pets, people hiking, bicycling, and all forms of motorized equipment, movement down streams, wind, etc. Each weed has its own unique characteristics that make seed transport by some methods more significant than others. The concern with OHV's is their potential to spread weed seed. OHV's can get weed

Knapweed along a road in western Montana.

seed temporarily attached to them and then drop the seed in an area without weeds. One study, under experimental conditions with a pickup truck, determined that an average of 1,644 knapweed seeds were caught on the vehicle after backing 40 feet through an infested patch and then pulling back out. After driving one mile, 226 seeds or 14% were attached, and after ten miles, 138 seeds or 8% were still attached (Trunkle and Fay 1991). This type of seed attachment and dispersal would occur only when plants are mature and the seeds are ripe. Sometimes, after the continued and heavy use of OHV's in a concentrated area, such as a trail, vegetation is reduced and the soil exposed, which creates favorable conditions for weeds to become established.

A review of weed inventory maps demonstrates the strong association of weeds with roads and trails. This is related to the common use by people and animals that transport the seeds. In addition, these areas are kept perpetually disturbed through use. These roads and trails serve as the invasion corridors for many weeds, which then spread away from those locations. Due to the random nature of motorized wheeled cross-country travel, the spread of weeds to new locations is not easily detected. The impact of exotic invasive plants is tremendous on native plant communities, wildlife populations and habitats, and economics (Duncan 1997). The economic impacts of weeds are considerable, affecting livestock and crop production, reduced recreation opportunities and reduced wildlife related expenditures. One study indicated a total economic loss of $42 million in direct and secondary economic impacts from knapweed in Montana. Direct losses for grazing were $11 million and $3 million on wildlands. A study of the losses from leafy spurge in Montana, Wyoming, North Dakota and South Dakota indicated losses of approximately $120 million related to grazing and $10 million related to wildlands. All these effects and more are summarized in Duncan's (1997) paper on the benefits of weed management.

The term "noxious weed" has a specific recognized legal meaning compared to "invasive" plant. A noxious weed is an exotic plant designated at the federal, state or county level, that if established or introduced, may render lands unfit for agriculture, forestry, livestock, wildlife or other beneficial uses. When so designated, property owners/managers have a legal responsibility to prevent the propagation and spread of that weed or manage it in accordance with a weed management plan. Many plants can be invasive but are not legally designated as noxious, thus the term invasive exotic is often used as a broader, more inclusive term, referring to problematic plants.

An estimated 930,000 acres or 5.1% of FS lands are infested with noxious weeds in Montana, North Dakota and South Dakota. BLM has an estimated 390,000 acres, or 4.5%, of infestation on public lands. BLM acreage with noxious weeds increased fourfold between 1985 and 1996. Many of these weeds were introduced and identified in the 1950's or earlier. Most of the knowledge for type and distribution of weeds is due to recent inventory efforts made possible by global positioning technology and computer mapping. Also, experience and studies have shown that in areas of infestation noxious weeds increase about 14% a year under "natural" conditions (USDI 1985, USDI 1991a, USDI 1996). This demonstrates the rapid pace of the noxious weed invasion. The figures also indicate that a lot of land has not yet been infested. The weed infested acreage figures are dominated by a few weed species. Spotted knapweed, leafy spurge and St. John's wort account for 91% of the acreage, spotted knapweed accounts for 79% by itself, on FS lands. Another 55+ species account for the remaining acreage. The weeds are not evenly distributed across all lands. On FS lands, 87% of the acres infested are on the four western forests, the Kootenai, Flathead, Lolo and Bitterroot. Leafy spurge is the most common weed on public lands in the Prairie Region and the eastern portion of the Great Plains Region.

A number of the species that have relatively few acres infested have the potential to be as problematic as spotted knapweed and leafy spurge; however, through current prevention, detection and control efforts they have been limited to the current infestation levels. An example has been the management of rush skeleton weed in a cooperative effort between Lincoln and Sanders Counties, the Kootenai National Forest and Montana Department of Agriculture. The weed has been identified and treated at the level of numerous small spots, all less than a few acres, for many years now. The amount of time and money expended to keep rush skeleton weed contained is very high on a per acre basis, but it is protecting millions of acres of agricultural and wildlands from infestation. Prevention is the cheapest method of managing invasive exotics.

The FS and BLM have implemented a number of requirements as part of their prevention programs to minimize the spread of weeds by a wide range of activities. Requiring weed seed free forage for livestock used on NFS and BLM lands is one. Other practices include weed seed-free straw and seed mixes for erosion control and revegetation activities. Requiring the cleaning of equipment used off-road for logging, utility transmission work, special use permits, permittee equipment use, and fire fighting equipment are other preventive practices. OHV activity is but one of many human activities that has the potential to cause the spread of noxious weeds or invasive plants. Agencies and co-operators are continuing to develop best management practices to be used in all different forms of land management activities to prevent or reduce the risk of new weed infestations and contain or reduce the spread of existing ones.

Native Plant Communities

Native plant communities are displaced when repeated OHV use occurs in a location, whether this use is occurring in a riparian zone or upland area; however, the total amount of area affected is quite small considering the three-state area. It can have local site-specific ramifications, but they are beyond the scope of this decision. The removal of vegetation cover and root systems can lead to other resource damage such soil erosion, sedimentation in streams, etc. These issues are discussed in the Aquatic and Soils sections.

Threatened and Endangered Plants

Water Howellia: This threatened plant species occurs as a submerged or floating annual associated with lakes and ponds. The surrounding upland vegetation is typically a dense conifer forest. Most of the 106 occurrences on record in Montana are on the Flathead National Forest, all in the Swan Valley (Lake and Missoula Counties). Some of these sites occur in limited access grizzly corridor zones behind locked gates where use is restricted by number of visits per week. The habitat of this plant is not conducive to OHV traffic, and no impacts from motorized wheeled cross-country travel are known or anticipated to occur.

Ute Ladies' Tresses: None of the 11 occurrences in Montana of this threatened plant species are on BLM or FS lands, though the Butte Field Office was involved in an interagency wetland project at one site that has been opened to hunting and other nonmotorized public use and was identified at one time as a possible land exchange. The habitat for this species includes meandered wetlands and swales in broad, open valleys at margins with calcareous carbonate accumulation. They are in a four-county area of the Jefferson River and confluent lower reaches of the Beaverhead, Gallatin, Madison and Ruby Rivers. Most Montana occurrences are on private land; a few are on State lands. Surveys for this species were conducted to delimit the range of distribution in Montana, including the most likely BLM and NFS lands, but this species was not found on BLM or NFS lands (B. Heidel, pers. comm. 2000). Therefore, the likelihood that this species occurs on BLM or NFS lands is low.

Western Prairie Fringed Orchid: There are three remaining large populations of this threatened species. One occurs within the analysis area on the Sheyenne National Grassland. This species is associated with sedge meadows, primarily within the tallgrass prairie. It occurs in the sandhills habitat association on the Sheyenne National Grassland. Across its range, the species is generally found in fire and grazing adapted grassland communities, most often on unplowed calcareous prairies and sedge meadows. It has also been documented in successional plant communities on disturbed sites. (USDA 1999b).

Maintenance of functional, dynamic tallgrass prairie is key to survival of the species. Disturbances such as fire, flooding, and grazing occurred historically and may be important for orchid regeneration. Precipitation and flooding events on the Sheyenne National Grassland influence extinctions and recovery of local orchid populations. (USDA 1999b).

Spalding's Catchfly: Currently proposed as threatened, this species is known from a total of 52 populations distributed across Washington, Oregon, Idaho, Montana, and British Columbia. The habitat is primarily restricted to moist grasslands that make up the Palouse region in southeastern Washington, northwestern Montana and adjacent portions of British Columbia, Idaho and Oregon. Large-scale ecological changes in the Palouse region over the past several decades, including agricultural conversion, changes in fire frequency, and alterations of hydrology have resulted in the decline of Spalding's Catchfly. More than 98 percent of the original Palouse prairie habitat has been lost or modified by agricultural conversion, grazing, invasion of nonnative species, altered fire regimes, and urbanization. In northwest Montana, this open grassland habitat is one of the few habitats conducive to motorized wheeled cross-country travel.

Within the analysis area, none of the known populations of Spalding's catchfly occur on FS or BLM lands. However, potential habitat exists on the Kootenai, Flathead, and Lolo National Forests. One of the largest populations occurs in Eureka, Montana in close proximity to FS lands. Other populations in Montana also occur near NFS lands; therefore, the probability that this species occurs on NFS lands is moderate. Future surveys of potential habitat on FS and BLM lands will be needed to determine the extent of this species.

Some past surveys for this species have been conducted on the Kootenai and Flathead National Forests. On the Flathead National Forest, small isolated suitable habitats exist along the North Fork of the Flathead River floodplain from the Canadian border to Polebridge; in very small, isolated grasslands in the Swan Valley; and in larger open fescue bunchgrass prairies in the South Fork Flathead and Danaher Creek Drainages within the Bob Marshall Wilderness. These habitats do not comprise more than 1% of the land base of the Flathead National Forest and most have been surveyed for this species (M. Mantas, pers. comm. 2000). On the Kootenai National Forest, potential habitat exists in the Tobacco Valley area around Eureka, Montana where one of the largest known populations occurs. Some of the grazing allotments with suitable habitat have been surveyed for this species.

Sensitive Plants

For the FS, a sensitive plant species is one that has been designated by the Regional Forester because of concern for population viability, as evidenced by: 1) significant current or predicted downward trends in population numbers or density; and/or 2) significant current or predicted downward trends in habitat capability that would reduce an existing species distribution. For the BLM, sensitive plants must: 1) be proven to be rare by proper study(s); 2) be proven to be imperiled by proper study(s); and 3) be documented on BLM surface. Although sensitive species are not protected under the ESA, their conservation is required by FS policy (FS Manual 2670) and by BLM policy (Special Status Species Plants Policy). Currently, the BLM has 28 plant species designated as sensitive in Montana, North Dakota and South Dakota. The FS has 114 plant species designated as sensitive in Montana and 46 in North Dakota and South Dakota. The list of sensitive species is found in Appendix F. These species occupy a wide range of habitats that include, but are not limited to, open grasslands, shrublands, forested areas, wetlands, rock outcrops, riparian areas, and specific substrates such as bases of shrubs. Many of these habitats are currently available and vulnerable to motorized wheeled cross-country travel.

ENVIRONMENTAL CONSEQUENCES

Introduction

The effects from OHV activities on vegetation and invasive weeds are very closely related and are discussed together in this section. Weed management has many components, and motorized wheeled cross-country travel is only one small part of it. Other management practices are outside the scope of this proposal and are dealt with through environmental analyses associated with those activities.

Effects Common to All Alternatives

Weeds: OHV travel has had numerous direct and indirect effects in relation to invasive weeds. Under all alternatives, weed spread on roads and trails will continue to occur. Indirectly, the establishment of weeds leads to numerous impacts to other resources. While no attempt is made to describe all the possible effects of each weed species, the following represents examples of the potential effects of weeds on other resources that are indirectly attributed to spread by OHV's.

Introduction and establishment of weeds can displace native species and plant communities which results in loss of species diversity and a change in the structure of the plant community (Tyser and Key 1988, Tyser 1992, Rice et. al. 1997a). These changes then lead to changes to wildlife habitat. However, the amount of area of native plant community directly affected by cross-country OHV use is quite small considering the whole analysis area and cannot be measured at the scale of this analysis.

Other examples include poisoning of livestock that consume weeds. Sediment yield and surface runoff can increase in areas infested with spotted knapweed (Lacey et al. 1989). Another example is the alteration of fire behavior as a result of weed species. Cheatgrass cures out very early and leads to more frequent burning. Leafy spurge contains oil compounds that are highly flammable.

Threatened and Endangered Plants: Under all alternatives, there would be no effect to the threatened water howellia due to a lack of known or anticipated impacts of motorized wheeled cross-country travel on this species and its habitat. Under all alternatives, there would be no effect to the threatened Ute ladies' tresses, as this species is not known to occur on NFS or BLM lands within Montana, although surveys of the most likely BLM and NFS lands were conducted for this species to delimit its range of distribution without detection(B. Heidel, pers. comm. 2000).

Sensitive Plants: This proposal is programmatic in nature; therefore, the discussion of effects will be general and qualitative rather than quantitative. The following assessment does not consider, because of the programmatic nature of this evaluation and lack of site-specific information, individual species ecological or biological requirements. Individual species requirements would be addressed in site-specific planning.

The criteria for evaluating potential effects to sensitive species are: 1) would implementation of the alternatives result in a loss of viability or distribution throughout the analysis area of the sensitive species; or 2) would implementation of the alternatives move sensitive species toward federal listing under the ESA. An assumption made here is that all regulations, policies, and direction of the FS and BLM would be followed with the implementation of any alternative; therefore, none of the alternatives, if fully implemented, would result in loss of viability of these species or move towards federal listing.

No Action Alternative

Weeds: This alternative has the greatest risk for expanding existing and introducing new weeds to BLM and FS lands. It retains the status quo for acres open (16 million acres) and seasons of use; therefore, the potential for OHV's to transport seed and create receptive seedbeds is the highest. The potential for creating new roads and trails exists and they

provide excellent avenues for weed invasion, thus increasing the effects across all the resources. The potential is highest in areas with gentler slopes and open conditions. These conditions are much more common in the central and eastern portions of the analysis area.

The loss of native plant species and communities would continue as the weeds replace some of the native plants. This loss leads to a series of other indirect effects: loss of wildlife habitat; increased erosion for some of the weeds; increased weed suppression costs; loss of forage production for livestock permittees; decreased economic outputs if the loss continues. Adverse economic effects resulting from losses of domestic and wildlife habitat would increase.

In addition to the effects described above, there would be a need to apply additional amounts of suppression activities, such as herbicides, grazing sheep and goats for leafy spurge, pulling and grubbing to control the establishment of new weed infestations. Each of these techniques has its own set of environmental effects, such as the damage to nonweed vegetation with some herbicides, or using grazing animals. They also can create conflicts with other goals, such as recovery of predators (e.g., wolves and grizzly bears).

Western Prairie Fringed Orchid: Motorized wheeled cross-country travel may eliminate or seriously affect populations of the orchid, either directly through the activity itself or indirectly through habitat modifications. For example, noxious weeds such as leafy spurge can be dispersed by OHV travel and pose a serious threat to orchid populations on the Sheyenne National Grassland. Without any management of motorized wheeled cross-country travel, these types of effects may continue to occur. The implementation of this alternative May Affect, and is likely to adversely affect the western prairie fringed orchid.

Spalding's Catchfly: Effects as a result of motorized wheeled cross-country travel may be direct or indirect. Direct effects could be from crushing, trampling or destroying actual plants. Indirect effects would be through habitat modifications, such as invasion by noxious weeds. Without any management of motorized wheeled cross-country travel, these types of effects may continue to occur. Although Spalding's catchfly has not yet been found on BLM or NFS lands in Montana, its valley (Palouse) grassland habitat is limited in extent on such lands. Furthermore, some of the suitable habitat in Montana has been surveyed. While this species occur sparsely on such lands, the likelihood of key populations being present on BLM or NFS lands is low. Thus, the likelihood for these effects to occur is fairly low; therefore, the implementation of the No Action alternative is not likely to jeopardize the continued existence of the Spalding's catchfly.

Sensitive Plant Species: Motorized wheeled cross-country travel may directly and indirectly impact sensitive plant species. Under the No Action Alternative, OHV's may crush, trample, or destroy sensitive plants. Indirect effects are a result of habitat alterations. These changes include increased bare soil, soil surface temperatures, soil compaction, runoff, erosion, and increased spread of and competition with noxious weeds. As stated before, existing regulations, policies, and direction of the FS and BLM would be followed with the implementation of this alternative. However, specific effects to sensitive plants cannot be determined without site-specific surveys. In the absence of additional surveys, the implementation of this alternative may impact individuals or habitat, but would not contribute to a trend towards federal listing or loss of viability to the population or species. This alternative has the greatest risk to sensitive plant species.

Alternatives 1, 2 and 5

Weeds: Alternatives 1, 2 and 5 and their overall effects are similar and will be discussed together. These three alternatives restrict OHV's to roads and trails with certain exceptions. The direct effects are a substantial reduction in the probability of introducing weeds by cross-country OHV use, because less vegetation and soil would be disturbed as a result of unplanned user-created trails and roads. Indirectly, the current detection and treatment of new infestations would be more effective, since the limited funds would not be spread as thin.

Alternatives 2 and 5 are slightly less effective than Alternative 1 because of exceptions for lessees or permittees to use equipment, and an exception for camping that is 300 feet from a road or trail. Alternative 2 also has an exception for big game retrieval. The effects are slight because of several factors. The acreage difference involved in the camping exception is relatively small, and travel would be concentrated primarily in areas traditionally used for dispersed camping and picnicking spots. The proximity of new infestations to a road or trail make detection and treatment much more likely. Some permittees/lessees are required to wash their vehicles to minimize the amount of seed transported off roads and trails. Travel for big game retrieval has more risk than permit holders (required to clean their vehicles) because no cleaning of the vehicle is required. However, there would only be one round trip during retrieval; therefore, relatively little vegetation and soil disturbance would result, which means any seed delivered to the site would not have a very conducive environment in which to become established.

Western Prairie Fringed Orchid: Under these alternatives, motorized wheeled cross-country travel would not be

allowed with certain exceptions. Under Alternatives 2 and 5, administrative use by federal employees, lessees, and permittees would also not be allowed in known orchid habitat without prior approval so as to eliminate impacts to occupied habitat. The direct and indirect effects associated with motorized wheeled cross-country travel would be substantially reduced or eliminated. The conclusion of effects of this alternative is No Effect.

Spalding's Catchfly: Under these alternatives, motorized wheeled cross-country travel would not be allowed except as described in Chapter 2. The direct and indirect effects associated with motorized wheeled cross-country travel would be reduced. However, potential habitat for this species does exist and may continue to be impacted by OHV use due to the exceptions, although the likelihood for direct or indirect effects to occur is fairly low; therefore, the implementation of any one of these alternatives is not likely to jeopardize the continued existence of the Spalding's catchfly.

Sensitive Plant Species: Under these alternatives, motorized wheeled cross-country travel would not be allowed with certain exceptions. Administrative use by federal employees, lessees, and permittees would also not be allowed in known orchid habitat without prior approval under Alternatives 2 and 5. These alternatives would greatly reduce or eliminate direct crushing, trampling, or destruction of sensitive plants. In addition, ongoing habitat alterations as a result of motorized wheeled cross-country travel would also be reduced or eliminated. Although the potential for impacts to sensitive plants is very low, specific effects cannot be determined without site-specific surveys. In the absence of additional surveys, the implementation of either alternative may impact individuals or habitat but would not contribute to a trend toward federal listing or loss of viability to the population or species. Any of these three alternatives would provide the greatest protection of sensitive species and their habitats.

Alternative 3

Weeds: This alternative has the same effects as Alternative 2 for the areas where OHV's are restricted, which involves an estimated 6.5 million acres. Simply stated, the potential for weed spread by OHV's during motorized wheeled cross-country travel is greatly reduced. Alternative 3 has similar effects to the No Action Alternative for the areas where they are not restricted with two important differences. First, the areas open for motorized wheeled cross-country travel are in western Montana, except the Lolo National Forest and Missoula Field Office, which are already restricted. These lands are generally too steep and/or densely vegetated to be traversed by OHV's; therefore, much of the "open" acreage is not available to OHV use and is at minimal risk to weed spread. However, the areas that are not forested are often quite susceptible to weed invasion, as evidenced by the tremendous amount of spotted knapweed in the bunchgrass communities throughout much of western Montana. The second exception in comparing this alternative to the No Action Alternative is that BLM lands in the central and eastern part of Montana are at lower risk of weed infestation from motorized wheeled cross-country travel because: a) many of the parcels are landlocked by private owners and, therefore, access is restricted; b) they have very little use by OHV's; c) the amount of weeds currently present or adjacent to some of these areas is quite low.

The areas that remain open to motorized wheeled cross-country travel will continue to see expanded weed spread due to the difficulty of detecting new weed infestations in remote, rarely traveled locations until they are well established and more expensive and difficult to eradicate, if it is still possible. Overall, this alternative has substantially less acreage at risk of weed invasion from OHV use than the No Action Alternative, but more than Alternatives 1, 2, and 5. See Table 3.1 for an acreage comparison.

Western Prairie Fringed Orchid: Under this alternative, motorized wheeled cross-country travel would not be allowed with a few exceptions. Administrative use by federal employees, lessees, and permittees would be allowed under this alternative, which could potentially impact this species and its habitat; therefore, the implementation of this alternative May Affect, but is not likely to adversely affect the western prairie fringed orchid.

Spalding's Catchfly: In Alternative 3, motorized wheeled cross-country travel would not be restricted in northwestern Montana. Since potential habitat for this species within the entire analysis area occurs only in northwestern Montana, the determination of effects is the same as the No Action Alternative. The implementation of Alternative 3 is not likely to jeopardize the continued existence of the Spalding's catchfly.

Sensitive Plant Species: This alternative has effects similar to Alternative 2 for areas where motorized wheeled cross-country travel is restricted. For the open areas in this alternative, the effects are similar to those described in the No Action Alternative. The implementation of this alternative may impact individuals or habitat, but would not contribute to a trend toward federal listing or loss of viability to the population or species.

Alternative 4

Weeds: This alternative does not reduce the risk of any acres compared to the No Action Alternative, so the poten-

tial number of acres is the same. The open summer season (June 15-August 31) coincides with the seed production of most weed species; therefore, seed spread would occur. There is some benefit in that during this time period the soils are less likely to be rutted, displaced and disturbed; therefore, reducing the amount of potentially receptive seedbed. There is also some reduction of potential weed invasion through the restricted timeframe just by the reduction in number of trips that would be made. This is especially pertinent for areas where a substantial amount of use occurs during the hunting season. Overall effects are similar to the No Action Alternative.

The winter open period is lower risk than the summer for several reasons: a) since much of the seed has already been dispersed; b) typically during this time period the ground will be frozen and not susceptible to much disturbance and most of the grass and herbaceous plants are not likely to be impacted, although shrubs can be broken; c) the number of users during this time period is much lower and many areas are inaccessible with OHV's due to snow depths.

Western Prairie Fringed Orchid: In this alternative, motorized wheeled cross-country travel would be allowed during the summer months, which coincides with the flowering period of this species; therefore, existing direct effects may continue. Indirect effects through habitat alterations may also occur, as motorized wheeled cross-country travel would be allowed for parts of the year. The implementation of this alternative May Affect, and is likely to adversely affect the western prairie fringed orchid.

Spalding's Catchfly: In this alternative, motorized wheeled cross-country travel would be allowed during the summer months, which coincides with the flowering period of this species; therefore, existing direct effects may continue to occur. Indirect effects through habitat alterations may also continue to occur, as motorized wheeled cross-country travel would be allowed for parts of the year. Although Spalding's catchfly has not yet been found on BLM or NFS lands in Montana, its valley (Palouse) grassland habitat is limited in extent on such lands. Furthermore, some of the suitable habitat in Montana has been surveyed. While this species may occur sparsely on such lands, the likelihood of key populations being present on BLM or NFS lands is low. Thus, the likelihood for these effects to occur is fairly low; therefore, the implementation of Alternative 4 is not likely to jeopardize the continued existence of the Spalding's catchfly.

Sensitive Plant Species: This alternative would allow motorized wheeled cross-country travel during the summer months (June 15-August 31), which coincides with the flowering and seed production of many sensitive plant species; therefore, existing direct effects may continue. Indirect effects through habitat alterations may also occur, as motorized wheeled cross-country travel would be allowed for parts of the year. Overall effects are similar to the No Action Alternative. The implementation of this alternative may impact individuals or habitat, but would not contribute to a trend towards federal listing or loss of viability to the population or species.

Cumulative Effects

Weeds: Both BLM and FS have recognized the need to do more vegetation treatments, especially in forested conditions, but also in shrublands. Often these treatments takes the form of substantially increased amounts of prescribed burning and in some areas it will involve timber harvests, especially thinnings, to improve the diversity of wildlife habitat, reduce the risk of undesirable wildfires, protect watersheds, etc. The activities that make the forests more open and temporarily remove the trees create more receptive conditions for weed invasion. Alternatives 1, 2, 3 and 5 that reduce the risk of weed spread through OHV management, also reduce the risk of weed spread into the areas where the vegetation is temporarily disturbed by fire and/or timber harvests.

OHV use for motorized wheeled cross-country travel is only one of many ways that weeds can be spread. The elimination of motorized wheeled cross-country travel by itself would not make a large difference in weed spread. However, it could make an incremental difference. The same can be said of the weed seed-free forage program for packstock use on public lands; by itself it won't make a large difference, neither would requiring the cleaning of equipment used on timber sales, utility corridors, fish habitat improvement projects, etc. The National Off Highway Vehicle Conservation Council has promoted the use of OHV's on roads and trails, with part of the rationale based on their concern for the spread of noxious weeds. However, as all of these practices are implemented across public lands, their cumulative effect is to substantially reduce the risk of invasive exotics spreading across the landscape.

The invasion of native plant communities by invasive weeds should be viewed as an irretrievable commitment of resources once they are beyond the initial eradication stage. After that point the effort is to try and minimize their effects on all the resources cited previously and minimize their spread to uninfested areas. It means an ongoing effort into the foreseeable future of expenditures in Integrated Pest Management (IPM) efforts. If IPM efforts are not implemented, then short-term losses in habitat use by wildlife, recreationists, livestock permittees, reductions in biodiversity, and loss of topsoil through increased rates of erosion will occur, which often leads to increased sedimen-

tation in streams and lakes. These same effects on short-term use can turn into long-term productivity losses for all those items just listed.

Threatened, Endangered, and Sensitive Plant Species: Cumulatively, numerous factors have the potential to impact threatened, endangered, and sensitive (TES) species. These include management activities, such as timber harvest, livestock grazing, fire suppression, and road building. Other natural events, such as fire, floods, drought, and minor climatic shifts, can also impact TES species. The incremental effects contributed by motorized wheeled cross-country travel would include continued direct and indirect effects as described under the No Action Alternative. Of particular concern are the indirect effects of habitat loss due to invasive weeds. Habitats that are most vulnerable to invasive weeds are dry forests at lower elevations and grasslands in valley and montane zones. These are also the same habitats that are most conducive to motorized wheeled cross-country travel. Under the No Action Alternative and Alternative 4, the spread of invasive weeds due to motorized wheeled cross-country travel would continue to occur. The invasion of TES plant habitat by invasive weeds could be viewed as an irretrievable commitment of resources, as these habitats would no longer be available to TES plants. Under Alternatives 1, 2, and 5 the direct and indirect effects associated with motorized wheeled cross-country travel would be reduced or eliminated. However, habitats that are already infested with weeds would still be unavailable to TES plants and would still be considered an irretrievable commitment of resources unless very intensive eradication and restoration efforts were undertaken. Alternative 3 would be similar to the No Action Alternative on the Kootenai, Flathead, and Bitterroot National Forests. In the rest of the analysis area, Alternative 3 would be similar to Alternative 2.

Comparison of Alternatives

Figure 3.7 shows the relative risk of each alternative for TES plants and weed invasion risk from OHV cross-country use only, use on roads and trails is not included. Roads and trails are major avenues of weed invasion but their effect is the same across all alternatives and therefore, do not change between alternatives. Site-specific analysis would address the role of weed spread associated with roads and trails.

OHV cross-country use is only one of many ways that weeds are spread. The action alternatives make an incremental difference commensurate with the proportion motorized wheeled cross-country travel contributes towards the whole picture of weed spread.

The No Action Alternative is the highest risk because it has the greatest area open (15.8 million acres) for the longest periods of time and the least number of restrictions. Alternative 4 is slightly less than the No Action Alternative since the seasonal restrictions would reduce the amount of use during hunting seasons. However, the acreage open is the same and the season of use is during seed dispersal times for the weeds. Alternative 3 is substantially less at risk because only 6.5 million acres are open, and of the land that is open, many acres are not available because dense forests make traversing it unrealistic. Alternatives 1, 2 and 5 are the lowest risk because they restrict most areas to motorized wheeled cross-country travel. Alternative 1 is slightly better due to the exceptions in Alternatives 2 and 5.

WILDLIFE

AFFECTED ENVIRONMENT

Introduction

This section provides a basis from which OHV effects on wildlife can be addressed adequately for a three-state area. Descriptions of broad vegetative zones as inhabited by groups of animals provide the most common level of description needed for this analysis.

Over 600 species of fish and wildlife occupy public lands in the analysis area, either seasonally or yearlong. Species of special interest include big game, game birds, waterfowl, carnivores, predators, fur bearers, those designated as sen-

Figure 3.7Ä
Relative Risk of Alternatives to Invasive Weed Spread and Threatened,Ä
Endangered, and Sensitive PlantsÄ

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No Action Alt. 4                          Alt. 3          Alt. 2  Alt. 5 Alt. 1
[------------------------------------------ | ------------------------------------------]
Highest                            Moderate                                  Lowest
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sitive, and those listed as threatened or endangered. Threatened and endangered (T&E) species are listed in Appendix F. The BLM species of special concern and FS sensitive species are also listed in Appendix F. There are 80 animal species of special concern or sensitive species in the three-state area.

The vegetative description in the Vegetation and Weeds section adequately describes wildlife habitat. Of particular importance to wildlife are special habitats such as riparian and sagebrush.

Rocky Mountain Region

Mountainous areas provide seasonal habitats for a large number of ungulates that migrate from high elevation in the summer and fall, to lower elevations, usually south facing slopes, in the winter and spring. Elk, mule deer, white-tailed deer, moose and bighorn sheep are common to the forests of Montana. Dense forests with steep slopes extend from the west into the more open, generally less steep, country of the southern forests of the Gallatin and Beaverhead-Deerlodge National Forests. The western forests meet the plains along the Rocky Mountain Front of central Montana. The Rocky Mountain Front is an extensive winter range area that serves much of the wildlife that summer in the Bob Marshall, Scapegoat, and Great Bear Wilderness Areas. Other unique species of high public interest found in the mountains include carnivores such as wolverine, pine marten, fisher, mountain lion, threatened grizzly bear and lynx, and the endangered gray wolf.

In the past, both engineered and user-created roads followed drainage bottoms, which were the paths of least resistance. These locations created the worst situations for resident wildlife since riparian areas are important habitats. Likewise, OHV use off these main roads often follows side drainages and possibly ridgelines, which are also highly utilized by wildlife. The remainder of the mountainous area is generally not conducive to motorized wheeled cross-country travel because of steepness of slope and the density of vegetation in the forests (M. Hillis, pers. comm. 1999). In the forests of southwest Montana, motorized wheeled cross-country travel is relatively common in some locations due to patchy and less dense vegetation and, in some areas, more gentle terrain (M. Cherry, pers. comm. 1999).

Small mammals can be found throughout the mountains and associated habitats. Some occupy unique environments such as alpine habitats and bogs. Pocket gophers, pikas and marmots are common in alpine habitats, as is the chipmunk. In a sense, alpine zones are ecological islands within mountain ranges (Fitzgerald et al. 1994). Animals occupying these alpine zones are susceptible to extinction if severely impacted. Bogs provide fragile habitat with unique wildlife. In Montana, the northern bog lemming is classified as a state rare species dependent on bogs or peatlands (Reichel 1998, Flath 1998, MTNHP 1999), and several other small mammal species may be commonly associated with bogs (Joslin and Youmans 1999).

Great Plains and North American Prairie Regions

Sagebrush habitat in this region is key to the existence of particular wildlife species. Often occurring along mountain foothill areas, sagebrush habitats serve as winter range and can be the most important dietary item to mule deer. Grasses on sagebrush winter range areas are most important to elk and bighorn sheep, but if grasses are scarce sagebrush can become important in the diet of elk. Sagebrush habitats also occur throughout the Missouri River breaks, the broken terrain and rimrock areas in south-central Montana, and through similar terrain along the Yellowstone River. These habitats are important to elk and mule deer. Bighorn sheep populations are found in localized areas of North Dakota and central, western, and southern Montana.

User-created roads in these habitats have impacted wildlife, principally because of the increased human intrusion into the area as a result of a new road. Many of these roads were started and developed for hunting purposes. According to FS and BLM personnel, motorized wheeled cross-country travel is prevalent year-round on the Beaverhead-Deerlodge National Forest and nearby BLM lands (G. Mariani and J. Roscoe, pers. comm. 1999). In this area, nearly every ridge that can be traveled contains a user-created road. Two examples of detrimental effects include enough spring travel on user-created roads to stress elk in sagebrush-nursery areas, and travel to sagegrouse leks to observe them at their ritual dance.

Pronghorn antelope and sagegrouse are particularly dependent upon sagebrush habitat. Antelope depend on sagebrush as forage during the winter, which often exceeds 80% of their diet. Typical sagebrush inhabited by antelope contains sagebrush plants less than 24 inches in height with a variety of forbs and other forage occupying the site. These sagebrush stands have less than 50% cover and other components, such as water, are present (Cooperrider et al. 1986).

The importance of sagebrush to sage grouse has been well documented. They prefer sagebrush with a canopy cover greater than 15% for cover and food. Sagebrush provides 80% to 100% of the sage grouse's winter diet. Nesting habitat is often located under robust sagebrush plants.

Other species typically found in sagebrush habitats include sage thrasher, sage sparrow, Brewer's sparrow, pygmy

rabbit, white-tailed jack rabbit, great basin Kangaroo rat, deer mouse, Columbian ground squirrel, coyote, black-billed magpie, horned lark, burrowing owl, ferruginous hawk and other raptors. Some reptiles occur in sagebrush habitats, including the common garter snake, western rattlesnake, gopher snake, and horned lizard.

Native grasslands are the undisturbed areas left after conversions into agricultural lands. Unfortunately, river bottom areas have been the first to be converted, so much of the remaining grasslands occupy uplands. The ecotone between shrublands and grasslands has the greater diversity of species and this zone most often occurs along the mountain foothill areas. Ponderosa pine forests of southeastern Montana occupy a large area and contain healthy populations of white-tailed and mule deer as well as Merriam's wild turkey.

The mixed plains grasslands support a wide variety of wildlife. Many grassland animals are burrowers and others are swift runners. The pronghorn antelope is a common large mammal along with mule and white-tailed deer. Significant numbers of upland nesting waterfowl are found using potholes and reservoirs where upland cover is adequate for nest concealment and successful nesting. Nearly 15% of the continental population of ducks is produced from the Prairie Pothole Region (Montana, North Dakota, South Dakota, Minnesota and Iowa). Canada, snow, and white-fronted geese, swans, and over 20 species of ducks occur in Montana, North Dakota and South Dakota.

Sharp-tailed grouse occur throughout the plains and lower foothills east of the continental divide where native range is in good condition. They are more prevalent on upland mixed prairie than on sagebrush-saltbush areas. Sharp-tails nest on uplands in dense stands of residual cover but can also use brushy coulees. Woody draws and woodlands provide food and thermal cover during winter.

Of special note are prairie dog towns that are often the result of heavy grazing. These areas contain bare ground and low cover value. Although habitat appears limited with low species diversity, the exact opposite holds true. A total of 163 vertebrate species were reported on black-tailed prairie dog colonies in Montana (Reading et al. 1989, Koford 1958, Tyler 1968, Campbell and Clark 1981, Clark et al. 1982, Agnew 1983). Agnew and others (1986) found significantly higher densities of birds and mammals and greater avian species richness on prairie dog colonies than on adjacent prairie. The black-footed ferret, golden eagle and others prey on prairie dogs. Burrowing owls and cottontails inhabit unused burrows, and mountain plovers and others benefit from the environmental alterations by prairie dogs. The one notable effect from motorized wheeled cross-country travel in the jurisdiction of the Malta Field Office of BLM is that such travel can contribute to the numbers of prairie dogs killed by shooting. During a period of time when prairie dog populations are low and in an area where the black-footed ferret has been introduced and is recovering, the influence of motorized wheeled cross-country travel is not desirable (J. Grensten, pers. comm. 1999).

Since motorized wheeled cross-country travel across grasslands is so free of physical barriers, user-created roads and/or trails lead to the most interesting features, which are often the important wildlife habitats such as sharp-tailed grouse leks and prairie dog towns.

Threatened, Endangered, and Proposed Species

The U.S. Fish and Wildlife Service (FWS) provides lists of T&E species that may occupy habitats on public lands in the three-state area that include one insect, three fish, four birds, four mammals, and three plants. In addition, there are two species, one bird and one plant proposed for listing. The fish are discussed under the Aquatic section and the plants are described under the Vegetation and Weeds section of Chapter 3.

American Burying Beetle: This endangered species is listed only for South Dakota and is only known to occur in Gregory and Tripp Counties. BLM has 172 and 160 surface acres, respectively, in these two counties. Suitable habitat for the beetle is any site with significant humus or topsoil for burying carrion (USFWS 1995). This species is very rare and has not been found on BLM and NFS lands in South Dakota. The likelihood that it does occur on BLM or NFS lands is also low. Therefore, existing impacts from motorized wheeled cross-country travel should be minimal.

Whooping Crane: This endangered species has not been documented on public lands in Montana, North Dakota or South Dakota. Migrations pass over this area, but the important rituals in their life cycles are performed elsewhere. Hazards encountered by this species during migration include collisions with power lines, predators, illegal shooting, and conversion of resting habitat for agricultural uses. OHV use has not been identified as a threat to the Whooping Crane.

Bald Eagle: This threatened species is a migrant in North Dakota and South Dakota but occurs year-round in Montana and has made significant gains in breeding numbers. In 1978, only 12 breeding pairs were known in Montana (Servheen 1978). Spring counts in 1998 totaled 248 nests, which exceeds recovery goals (D. Flath, pers. comm. 1999). In Montana, bald eagles use riparian and wetland habitats during breeding season and choose old, large diameter trees for nesting (Montana Bald Eagle Working Group 1994). On

the west side of the continental divide where most of the nests are located, no evidence has surfaced that indicates OHV disturbance of nest sites is a problem (M. Hillis, pers. comm. 1999). The bald eagle is currently proposed to be delisted.

Piping Plover: This threatened species nests on sand and pebble beaches. In North Dakota they have also been documented on saline wetlands. Both habitats occur on public lands. One piping plover nest has been documented in Montana on a 16-acre parcel of BLM land in the Miles City Field Office area, which has been designated an Area of Critical Environmental Concern for the piping plover. There are no known occurrences on BLM lands in North Dakota and South Dakota, and the amount of habitat on BLM lands is limited. Habitat loss and degradation due to coastal development, recreation, navigation, dredging, and shoreline stabilization and replenishment projects have been major contributors to this species' decline. Human activity on beaches, such as walking, jogging, walking pets, and operating vehicles may prevent birds from feeding, flush birds from roost sites, alter habitat conditions, and destroy camouflaged eggs and young.

Mountain Plover: This species is proposed to be listed as threatened. Mountain plovers would most likely occur on the shortgrass prairie of eastern Montana. Knowles and Knowles (1999) summarized their survey of mountain plovers from 1991-1998 for Montana east of the continental divide. Mountain plovers were found at nine distinct areas. They were closely associated with sites characterized by slopes under 5%, vegetative height under 6 cm, and greater than half the soil surface being bare ground, lichen and/or club moss. Often, mountain plovers are associated with prairie dog colonies.

Least Tern: Favorite nesting sites for this endangered species include bare ground (recent alluvium) on islands. One island in the Yellowstone River, adjacent to public land, contains a colony of nesting least terns. None are known to occur on public lands in the analysis area. During spring and fall, least terns may use stock water reservoirs. Dams, reservoirs, and other changes to river systems have eliminated most historic least tern habitat.

Black-Footed Ferrets: Prairie dog colonies are key to the endangered black-footed ferret, although ferrets have been observed in ground squirrel colonies. Burrows provide shelter and the prairie dog itself is food for the ferret. Large colonies or complexes are needed for ferret survival, and this is the reason Phillips County was chosen as Montana's reintroduction area. The program was initiated in 1994 and yearly releases have occurred ever since. According to the FWS, 41 ferrets were counted there during the fall of 1998 (R. Matchette, pers. comm. 1999). In the past, these prairie dog towns in Phillips County have been important to a significant number of sport shooters. Because of a recent decline in prairie dogs, BLM closed some of these towns to shooting. This will reduce the amount of OHV travel in the area.

Gray Wolf: The recovery plan for this endangered species discussed three areas for wolf recovery including the Central Idaho Recovery Area, the Northwest Montana Recovery Area, and the Yellowstone Recovery Area (USDI 1987). The goal for delisting was to establish 10 or more packs in each of these three areas. Increases in gray wolf number, expansion of the species' occupied range, and progress toward achieving the reclassification and delisting criteria of several approved gray wolf recovery plans have led to a proposed downlisting of this species throughout most of its range, including Montana, North Dakota, and South Dakota. Gray wolves in Montana, North Dakota, and South Dakota will be reclassified from endangered to threatened, except where classified as an experimental population, if this proposal is finalized (65 FR 43449, July 13, 2000). Wolves first expanded down from Canada in northwest Montana and have continued expansion ever since. Recently, successful releases in Yellowstone Park and central Idaho advanced the process. Key components of wolf habitat include sufficient year-round big game prey base and secluded denning and rendezvous sites with minimal exposure to humans. Riparian and wetland sites are especially important for rendezvous sites, which are specific resting and gathering areas for the packs after the whelping den has been abandoned. Beaver provide an important alternate prey in these areas during ice-free times ('USDI 1987).

Grizzly Bear: This threatened species is maintaining its population in two ecosystems, the Northern Continental Divide Ecosystem of western Montana and the Yellowstone Ecosystem of southwestern Montana and portions of Wyoming and Idaho (primarily centered in Yellowstone National Park). Other ecosystems with some limited grizzly bear occupancy include the Selkirk and Cabinet-Yaak Mountains of Montana, the Selway-Bitterroot of Montana and Idaho, and the North Cascades of Washington. A recent proposal to reintroduce grizzly bears in the Selway-Bitterroot has met with serious opposition from some segments of the public.

Grizzlies are opportunistic and omnivorous and feed on animal or vegetable matter. Herbaceous plants are utilized, as are ground squirrels, carrion, garbage, ungulates, roots, fruits, berries, tubers, fungi, pine nuts and even tree cambium. Bears occasionally prey on livestock and also are attracted to bone yards and dead livestock. Many bear foods, both animal and vegetable, occur in riparian and wetland areas, with some of the berry producing shrubs

occurring in the uplands. Large areas of relatively undisturbed land with food, cover, denning habitat, solitude, and space are important for effective grizzly bear habitat (Interagency Grizzly Bear Committee 1987, Craighead and others 1982). The Grizzly Bear Recovery Plan (USDI 1993) identifies human depredation, competitive use of habitat, and livestock grazing as sources of conflict.

Canada Lynx: In March 2000, the Canada lynx was listed as threatened. Lynx occur primarily in the boreal, subboreal, and western montane forests of North America. In Montana, the western montane forests include spruce/fir, Douglas-fir, and fir-hemlock vegetation types dominated by lodgepole pine, Engelmann spruce, subalpine fir, aspen, and whitebark pine at 1,400-2,700 m. Snowshoe hares are the primary prey of lynx, although diet can be more varied in the summer than the winter. Fire mosaics contribute to snowshoe hare abundance. Motorized wheeled cross-country travel has probably had very little influence on lynx because they occupy habitats of dense forests at high elevations surrounded by slopes too steep to accommodate vehicular travel.

Sensitive Species

For the FS, a sensitive species is one that has been designated by the Regional Forester because of concern for population viability, as evidenced by: 1) significant current or predicted downward trends in population numbers or density; and/or 2) significant current or predicted downward trends in habitat capability that would reduce an existing species' distribution. For the BLM, species of special concern are defined as native species which are either low in number, limited in distribution, or have suffered significant habitat losses. Although these species are not covered under the Endangered Species Act, their conservation is required by FS policy (FS Manual 2670) and by BLM policy (BLM Manual 6840). Currently, the FS has 34 and the BLM has 46 animal species designated as sensitive within the analysis area. These species occupy a wide range of habitats throughout the analysis area. Some of these sensitive species and habitats are vulnerable to motorized wheeled cross-country use.

Existing Impacts from Vehicles on Wildlife

Travel by vehicle is presently occurring both on and off roads on public lands as allowed for in forest plans and resource management plans. Some level of impact is occurring to wildlife wherever this travel is allowed. Factors such as habitats and species present, density of species, location of travel in relation to important habitats, time of year or even time of day, amount of vehicle travel, and a myriad of other factors could apply in determining what and how much impacts are occurring.

The extensive literature review conducted by the Montana Chapter of the Wildlife Society, "Effects of Recreation on Rocky Mountain Wildlife Habitat" (Joslin and Youmans 1999), contains an exhaustive listing of research, much of which relates to vehicular effects on wildlife. However, most of the studies that have been undertaken are of impacts from roads and do not address the question concerning impacts from motorized wheeled cross-country travel. Continued motorized wheeled cross-country travel in an area results in the creation of user-created roads. This report describes effects from roads, including habitat fragmentation, isolation of rare and unique habitats such as bogs or alpine areas, direct effects such as collisions with animals causing death and injury as well as physical destruction of habitats, abandonment of habitat features such as nests to abandonment of home ranges, and physiological penalties from unnecessary energy expenditures because of vehicular harassment.

Smaller animals, reptiles and amphibians are most likely to be directly killed by vehicles and are especially vulnerable when crossing roadways. Motorized wheeled cross-country travel may disrupt habitat to the point that it becomes unusable by reptiles and amphibians (Busak and Bury 1974). The diversity, density and biomass of small mammals are inversely related to the level of OHV use (Bury et al. 1977). Habitat modification through vegetation and soil disturbance may also impact many small mammals. Sensitive habitats such as alpine areas, bogs, and arid areas would be most vulnerable from impacts to vegetation.

Even though many responses of small mammals to recreationists may be short-lived, both the long-term and cumulative effects of repeated disturbance may not be immediately obvious. According to Knight and Cole (1991), effects often include abandonment of disturbed areas in favor of undisturbed sites or, in some cases, attraction to recreational activities (Phelps and Hatter 1977, Klein 1971). This may lead to behavioral alterations such as mating, feeding and predator avoidance. Disturbance can also reduce the vigor of small mammals. For example, elevated heart rates, energy expended in disturbance flights, and reductions of energy input through disturbance will all increase energy expenditures or decrease energy acquisition. These may result in increased sickness, disease and potential death of small mammals (Knight and Cole 1991). While these responses have been suggested, evidence is largely circumstantial (Hutchins and Geist 1987).

Some raptors, such as the ferruginous hawk, can be extremely sensitive to vehicular visits, especially during courtship and nest building. Trespass can result in nest abandonment. With increased recreational pressures raptor populations could decline. People can also disrupt raptor behavior at times other than breeding season. Flushing birds from

foraging perches and day or night roosts can be particularly stressful during periods of prey scarcity and/or severe weather (Holmes et al. 1993, Stalmaster 1987, Stalmaster and Newman 1978, Bueler et al. 1991, Grubb et al. 1992).

Effects from habitat fragmentation are recognized with songbirds. Roads and trails add to forest fragmentation by dissecting large patches into smaller pieces and by converting forest interior habitat into edge habitat (Askins 1994, Askins et al. 1987, Reed et al. 1996, Schonewald-Cox and Buechner 1992). Fragmentation of limited, high-value habitats such as riparian areas may cause some of the most severe impacts on songbirds. Grassland-shrubland songbird species are likewise vulnerable to road and trail activities. Trails and roads will create edge habitat for predators and will reduce patch size of remaining habitat for area-sensitive species.

The impacts of OHV's within open habitats may also be greater than within forested areas, simply because much more area is accessible and because a number of larger, low-density birds such as raptors and ravens nest along prominent landmarks (cliffs) in these habitats. Species such as ravens (Hooper 1977), golden eagles and prairie falcons (Fyfe and Olendorff 1976) can easily be disturbed during the nesting season.

Deer, elk and other ungulates experience physical stress and expenditure of energy when disturbed by vehicles. The winter season is a particularly critical period for big game, since physical stress is already relatively high and vehicular disturbance during this time could have serious effects. Other seasons are also important. During the summer, animals must build up fat reserves to carry them through the winter. Adult males must meet energy demands of rapid horn and antler growth. Adult females must meet the energy demands of lactation and the developing neonates.

In Montana, there has been more interest in the effects of roads on elk than any other species besides the grizzly bear. Displacement from selected habitats over time is a much more serious impact to elk than the immediate response of fleeing from a disturbance. Studies have repeatedly shown that vehicle traffic on forest roads establishes a pattern of habitat use in which areas nearest the road are not fully utilized by elk (Marcum 1976, Marcum and Edge 1991, Perry and Overly 1976, Rost 1975, Rost and Bailey 1974, 1979, Thiessen 1976, Ward 1976, Ward et al. 1973, Edge and Marcum 1991, 1985, Edge et al. 1987, Lyon 1979, 1983). With only two miles of roads open to vehicular traffic per square mile, the area impacted can easily exceed half of available elk habitat (Lyon 1983).

The forests and shrublands of southwestern and southern Montana are more conducive to motorized wheeled cross-country travel due to moderate terrain and vegetative conditions. Unfortunately, little has been documented of the relationship between elk and motorized wheeled cross-country travel. Since this travel would be more random and probably less intense than along a road, displacement may not occur except during hunting season. However, motorized wheeled cross-country travel could work to protect elk by driving them further back into tougher country, potentially lowering the success of harvest during hunting season (R. Roginske, pers. comm. 1999). In the Bitterroot National Forest, increased levels of horn hunting may stress elk in their winter/calving area in late spring (J. Ormisten, pers. comm. 1999). A similar problem has been noted on the Gallatin National Forest (M. Cherry, pers. comm. 1999), and in the Missouri breaks horn hunters have even been observed chasing antlered bull elk with OHV's in the spring with the intent of being present when the elk lost their antlers (M. Williams, pers. comm. 1999).

The combination of motorized wheeled cross-country travel and hunting has led to examples of unethical sportsmanship, especially on opening weekends. As described by Posewitz (1994), herding fleeing antelope with vehicles and taking flock shots at long ranges has disastrous results. High crippling loss and less opportunity for ethical hunters are two of the most important effects. Adequate travel planning and OHV restrictions could reduce this kind of activity from being so prevalent.

The other animal that has been intensely examined as to how it relates to roads is the grizzly bear. Agencies responsible for this threatened species' welfare have spent countless time and money on research, cumulative effects and access modeling to determine the best way to manage roads in grizzly bear country. These efforts have been undertaken in both the Northern Continental Divide and Yellowstone Subcommittees of the Interagency Grizzly Bear Committee; therefore, most of the occupied habitat of the grizzly contains protective road closures of one sort or another. The Northern Continental Divide Subcommittee has established access standards to alleviate effects on grizzlies from either roads or trails. Motorized wheeled cross-country travel has not been addressed as being the problem to bears that roads are, but possibly could if "recreational play" became intense enough in an area of important bear habitat. This would be addressed by site-specific activity planning. Much of the grizzly bear occupied habitat in northwest Montana is dense forest with steep slopes that naturally exclude motorized wheeled cross-country travel. An exception to this situation may be in the Gallatin Forest of the Yellowstone grizzly bear ecosystem, where vegetation is more open and slopes are gentler (M. Cherry, pers. comm. 1999).

One of the most serious impacts on wildlife from vehicles has been indirect. Vehicle traffic has been linked with the

establishment and spread of noxious weeds in wildlife habitat. Noxious weeds may reduce the quality and quantity of summer forage for ungulates, resulting in poorer reproductive performance over the lifetime of an animal. Experience in western Montana has shown that noxious weeds are capable of influencing ecosystems, and risks of habitat impacts are high without an aggressive program of prevention and rapid response to weed establishments.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

This proposal is programmatic in nature; therefore, the discussion of effects will be general and qualitative rather than quantitative. The following assessment does not consider, because of the programmatic nature of this evaluation and lack of site-specific information, individual species' ecological or biological requirements. Individual species' requirements would be addressed in site-specific planning. Potential site-specific effects on any given species or habitat would be evaluated during site-specific planning.

The criteria for evaluating potential effects to sensitive species are: 1) would implementation of the alternatives result in a loss of viability or distribution throughout the analysis area of the sensitive species; or 2) would implementation of the alternatives move sensitive species toward federal listing under the Endangered Species Act. An assumption made here is that all regulations, policies, and direction of the FS and BLM would be followed with the implementation of any alternative; therefore, none of the alternatives, if fully implemented, would result in loss of viability of these species or lead towards federal listing.

The most obvious effects to wildlife and wildlife habitats from motorized wheeled cross-country travel have been indirect and include:

- User-created roads, which often occur up or down drainageways or ridges, are now permanent fixtures on the landscape.

- Motorized wheeled cross-country travel contributes to the spread of noxious weeds that has resulted in the loss of large acreages of wildlife habitats. The classic example is the spread of spotted knapweed across the hillsides of western Montana. However, vehicular travel on roads and trails has likely been a greater contributor of weed spread than cross-country travel.

- None of the alternatives restrict OHV travel on roads and trails. Any impacts to wildlife from this type of vehicular activity would continue.

Threatened, Endangered, and Proposed Species: Under all alternatives there would be No Effect to the American burying beetle, least tern, and whooping crane due to the lack of presence in areas of OHV use.

No Action Alternative

As documented in the Montana Chapter of the Wildlife Society Report (Joslin and Youmans 1999), vehicles do impact wildlife. The severity of the impact may be in direct relationship to the amount of vehicle travel occurring. For example, the impact from an interstate highway through an area of sagebrush-grassland could have a particularly devastating effect on antelope and sagegrouse, whereas the impact from the amount of motorized wheeled cross-country travel occurring in the same area could be of little consequence to these same species. In other words, the level of impact from vehicular activity on wildlife should be directly related to the amount of activity occurring.

The current level of impact (as discussed in the above section: Existing Impacts from Vehicles on Wildlife) in the three-state area from motorized wheeled cross-country travel would continue with the No Action Alternative. Many of the direct and indirect impacts discussed in that section could affect the threatened, endangered, and sensitive species listed in Appendix F, including direct crushing of individual animals, habitat modification through vegetation and soil disturbance, abandonment of disturbed areas in favor of undisturbed sites, behavioral alterations affecting mating, feeding and predator avoidance, and nest abandonment.

Impacts from vehicles can be direct as a result of collision or crushing of individual animals, however, with small mammals most impacts are related to the impacts on vegetation and barriers created by trails and roads. Habitat fragmentation reduces effective habitat for particular species. Generally, the more important the habitat type and the smaller the home range of the species, the greater the effect of fragmentation. Fragmentation of habitat from OHV use would occur as a result of long-term and repeated use resulting in the creation of a road or trail system in the particular habitat. This situation has been documented at a number of localities, often the result of hunters and the hunting season. Under this alternative, fragmentation from motorized wheeled cross-country travel or from user-created roads and trails would continue.

Physiological effects on wildlife from human disturbances, including from vehicles, have been well documented. Most studies of these effects have been on ungulates such as deer and elk. The casual observer who visits a big game winter range and watches the deer and elk may observe little disturbance exhibited by the animals. But that observer is

unaware of the actual physiological stress the animal is experiencing and how that contributes to the animal's cost of living. Vehicular harassment on winter range, important summer range or other special habitat features can be governed by road placement. Animals can leave the area if the harassment is too severe or, possibly, adapt to it if the harassment has become frequent, both of which have negative consequences. However, motorized wheeled cross-country travel, which is less patterned and less expected, may be more relatively disruptive. All areas now open to motorized wheeled cross-country travel would remain open in this alternative, and these impacts would continue to occur.

One of the greatest indirect impacts from vehicles, both on and off roads, has been the spread of noxious weeds in wildlife habitats. Weed establishment has reduced the quality and quantity of wildlife forage over large areas. Weeds spread by OHV's are particularly hard to control as they are spread at random over large areas, and not just along a roadway. This alternative would allow motorized wheeled cross-country travel in the future and would continue to contribute to the spread of weeds and loss of wildlife habitat.

Threatened and Endangered Wildlife Species: With this alternative, the direct and indirect effects described above would continue and are expected to increase over time. Therefore, No Action Alternative May Affect but is not likely to adversely affect the bald eagle, piping plover, black-footed ferret, grizzly bear, gray wolf, and Canada lynx. The No Action Alternative May Affect but is not likely to jeopardize the continued existence of the mountain plover.

Sensitive Wildlife Species: As stated before, existing regulations, policies, and direction of the FS and BLM would be followed with the implementation of this alternative. However, specific impacts to sensitive species and habitats could potentially occur and cannot be determined without site-specific information. In the absence of additional information, the implementation of this alternative may impact individuals or habitat, but would not contribute to a trend toward federal listing or loss of viability to the population or species.

Alternative 1

This alternative would restrict motorized wheeled cross-country travel yearlong on NFS and BLM lands. Impacts from motorized wheeled cross-country travel now occurring in the three-state area (as discussed in the No Action Alternative and in the above section: Existing Impacts from Vehicles on Wildlife) would be minimized if Alternative 1 is implemented. Thus, any direct impact from vehicle/animal collisions would be minimized. Fragmentation as a result of motorized wheeled cross-country travel would cease, including that from roads created by OHV's.

Vehicular harassment causing physiological stress of wildlife on areas that are restricted to motorized wheeled cross-country travel would be minimized. Thus, impacts to ungulates on winter range areas and summer habitat that have been affected by motorized wheeled cross-country travel would not continue. Birds nesting in heavy motorized wheeled cross-country use areas would not be subject to any negative effects from this activity. Prairie dog colonies and all obligate species that have been reached by motorized wheeled cross-country travel would no longer be affected.

This alternative would help reduce the spread of noxious weeds in areas open to motorized wheeled cross-country travel. The indirect impact of weed expansion into important wildlife habitats has recently been one of the greatest impacts to wildlife in the three-state area.

Threatened and Endangered Wildlife Species: The direct and indirect effects associated with motorized wheeled cross-country travel would be insignificant or discountable. For example, the implementation of Alternative 1 would reduce stress and potential for collisions to T&E species. Also, the spread of weeds would be reduced, which would lessen the impacts to T&E species habitat. Therefore, the overall effects of this alternative would be positive for T&E species. However, T&E species and their habitat within the analysis area may continue to be impacted by OHV use due to the exceptions for administrative and permitted uses, although the likelihood for direct and indirect effects to occur is fairly low. Alternative 1 May Affect, but is not likely to adversely affect the bald eagle, piping plover, black-footed ferret, gray wolf, grizzly bear, and Canada lynx. This alternative May Affect, but is not likely to jeopardize the continued existence of the mountain plover.

Sensitive Wildlife Species: Existing regulations, policies, and direction of the FS and BLM would be followed with the implementation of this alternative. Although potential impacts associated with motorized wheeled cross-country travel would be reduced or eliminated, specific impacts to sensitive species and habitats could potentially occur and cannot be determined without site-specific information. In the absence of additional information, the implementation of this alternative may impact individuals or habitat, but would not contribute to a trend toward federal listing or loss of viability to the population or species.

Alternative 2

This alternative is slightly less restrictive than Alternative 1 due to some exceptions. Travel by OHV's would be

allowed by lessees and permittees, as well as by government workers as they conduct business on these lands. Exceptions for the general public would be allowed for camping and game retrieval. Thus, impacts to wildlife may be slightly greater, or possibly negligible in this alternative in comparison to Alternative 1.

Threatened and Endangered Wildlife Species: The direct and indirect effects associated with motorized wheeled cross-country travel would be insignificant or discountable. For example, the implementation of Alternative 2 would reduce stress and potential for collisions to T&E species. Also, the spread of weeds would be reduced, which would lessen the impacts to T&E species habitat. Therefore, the overall effects of this alternative would be positive for T&E species. However, T&E species and their habitat within the analysis area may continue to be impacted by OHV use due to the exceptions for administrative and permitted uses, although the likelihood for direct and indirect effects to occur is fairly low. Alternative 2 May Affect, but is not likely to adversely affect the bald eagle piping plover, black-footed ferret, gray wolf, grizzly bear, and Canada lynx. This alternative May Affect, but is not likely to jeopardize the continued existence of the mountain plover.

Sensitive Wildlife Species: As stated before, existing regulations, policies, and direction of the FS and BLM would be followed with the implementation of this alternative. Although potential impacts associated with motorized wheeled cross-country travel would be reduced or eliminated, specific impacts to sensitive species and habitats could potentially occur and cannot be determined without site-specific information. In the absence of additional information, the implementation of this alternative may impact individuals or habitat, but would not contribute to a trend toward federal listing or loss of viability to the population or species.

Alternative 3

Effects on wildlife from this alternative are similar to the No Action Alternative for a portion of the three-state area that would remain open to motorized wheeled cross-country travel. This area would include the Flathead, Kootenai and Bitterroot National Forests.

For the remainder of the analysis area impacts to wildlife would be similar to those discussed in Alternative 2.

Threatened and Endangered Wildlife Species: With this alternative, the direct and indirect effects described in the No Action Alternative would continue on the Kootenai, Flathead, and Bitterroot National Forests. On these three national forests, No Action Alternative May Affect but is not likely to adversely affect the bald eagle, piping plover, black-footed ferret, grizzly bear, gray wolf, and Canada lynx. The No Action Alternative May Affect but is not likely to jeopardize the continued existence of the mountain plover

In the rest of the analysis area, the direct and indirect effects associated with motorized wheeled cross-country travel would be insignificant or discountable. For example, the implementation of Alternative 3 would reduce stress and potential for collisions to T&E species. Also, the spread of weeds would be reduced, which would lessen the impacts to T&E species habitat. Therefore, the overall effects of this alternative would be positive for T&E species. However, T&E species and their habitat within the analysis area may continue to be impacted by OHV use due to the exceptions for administrative and permitted uses, although the likelihood for direct and indirect effects to occur is fairly low. Alternative 3 May Affect, but is not likely to adversely affect the bald eagle, piping plover, black-footed ferret, gray wolf, grizzly bear, and Canada lynx. This alternative May Affect, but is not likely to jeopardize the continued existence of the mountain plover.

Sensitive Wildlife Species: Existing regulations, policies, and direction of the FS and BLM would be followed with the implementation of this alternative. Although potential impacts associated with motorized wheeled cross-country travel would be reduced or eliminated, specific impacts to sensitive species and habitats could potentially occur and cannot be determined without site-specific information. In the absence of additional information, the implementation of this alternative may impact individuals or habitat, but would not contribute to a trend toward federal listing or loss of viability to the population or species.

Alternative 4

This alternative would seasonally restrict motorized wheeled cross-country travel during the fall hunting season and during the late winter/spring period, which is a stressful time for some wildlife populations.

Much of the motorized wheeled cross-country travel is for the purpose of hunting and primarily occurs on two weekends, the opening of antelope season and the opening of the general big game season. Restricting vehicles to roads and trails during the fall would greatly reduce all associated impacts to wildlife for this period. Restricting areas to cross-country travel during the winter and spring time periods would lessen stress on wildlife during this critical period, and the impact from Alternative 4 would be similar to Alternative 2 as exceptions for leases and others are allowed.

For the other two time periods, summer and early winter, the effects on wildlife would be similar to the No Action

Alternative. This open period totals five months and does not include hunting season, the period when the greatest amount of motorized wheeled cross-country travel probably occurs. Due to this factor, the overall impacts to wildlife might be considerably less than that which is currently occurring.

Threatened and Endangered Wildlife Species: With this alternative, the direct and indirect effects described in the No Action Alternative would continue during the winter and summer months when motorized wheeled cross-country travel is allowed. The direct and indirect effects described in Alternative 2 would apply during the other times of the year. Therefore, Alternative 4 May Affect but is not likely to adversely affect the bald eagle, piping plover, black-footed ferret, grizzly bear, gray wolf, and Canada lynx. Alternative 4 May Affect but is not likely to jeopardize the continued existence of the mountain plover.

Sensitive Wildlife Species: Existing regulations, policies, and direction of the FS and BLM would be followed with the implementation of this alternative. Although potential impacts associated with motorized wheeled cross-country travel would be reduced or eliminated, specific impacts to sensitive species and habitats could potentially occur and cannot be determined without site-specific information. In the absence of additional information, the implementation of this alternative may impact individuals or habitat, but would not contribute to a trend toward federal listing or loss of viability to the population or species.

Alternative 5

The impacts of Alternative 5 are similar to Alternatives 1 and 2. An exception in Alternative 5 includes driving off-road 300 feet to a campsite. The campsite exception should hardly be a noticeable consequence to wildlife.

Threatened and Endangered Wildlife Species: The direct and indirect effects associated with motorized wheeled cross-country travel would be insignificant or discountable. For example, the implementation of Alternative 5 would reduce stress and potential for collisions to T&E species. Also, the spread of weeds would be reduced, which would lessen the impacts to T&E species habitat. Therefore, the overall effects of this alternative would be positive for T&E species. However, T&E species and their habitat within the analysis area may continue to be impacted by OHV use due to the exceptions for administrative and permitted uses, although the likelihood for direct and indirect effects to occur is fairly low. Alternative 5 May Affect, but is not likely to adversely affect the bald eagle, piping plover, black-footed ferret, gray wolf, grizzly bear, and Canada lynx. This alternative May Affect, but is not likely to jeopardize the continued existence of the mountain plover. Effects for listed species are also discussed in Appendix C, Biological Assessment.

Sensitive Wildlife Species: As stated before, existing regulations, policies, and direction of the FS and BLM would be followed with the implementation of this alternative. Although potential impacts associated with motorized wheeled cross-country travel would be reduced or eliminated, specific impacts to sensitive species and habitats could potentially occur and cannot be determined without site-specific information. In the absence of additional information, the implementation of this alternative may impact individuals or habitat, but would not contribute to a trend toward federal listing or loss of viability to the population or species.

Cumulative Effects

Cumulative effects that are detrimental to wildlife and wildlife habitats are greatest under the existing management condition (No Action Alternative). If the present situation continues with no restriction on motorized wheeled cross-country travel on those lands without travel plans, along with increasing recreational pressures, added impact to wildlife and wildlife habitat would result. More user-created roads would be developed and more noxious weed areas would spring up. Over time, the areas in most need of travel restrictions would be addressed through site-specific planning.

The remaining alternatives are all positive actions for wildlife. They vary slightly in the degree of restriction placed on motorized wheeled cross-country travel, and thus, the degree of protection involved for wildlife and wildlife habitat. Alternatives 1, 2, and 5 provide the greatest positive effect, as they protect the greatest area over the longest portion of a year. Alternative 3 restricts a smaller area, and Alternative 4 is a seasonal restriction. Cumulatively, the public lands restricted to motorized wheeled cross-country travel would be added to other federal and state agency lands already closed or restricted to such travel in the three-state area. This effect would continue until site-specific planning takes place, and if such planning results in continued restriction, there would be no change in the positive cumulative effect for wildlife.

AQUATICS

AFFECTED ENVIRONMENT

Introduction

This reports provides an overview of aquatic resources on NFS and BLM lands in Montana, North Dakota and north-

western South Dakota. The purpose of the investigation is to understand how OHV traffic affects water quality and aquatic habitats with an emphasis on sensitive, threatened and endangered fishes.

The popularity of OHV's for recreational purposes has grown significantly in the last 20 years, yet little research has been performed to evaluate the effects of such vehicle activity on stream channel function, water quality, or aquatic habitats. Brown (1994) evaluated riverbed sedimentation caused by OHV's at river fords. Five major processes by which locally eroded sediment was added to the stream channel were identified: the creation of wheel ruts and concentration of surface runoff, the existence of tracks and exposed surfaces, the compaction and subsequent reduction in the infiltration rate of soils leading to increased surface runoff, backwash from the vehicle, and undercutting of banks by wave action. Not surprisingly, it was determined that as vehicle traffic increased so did sediment deposited in the stream. While this study did not evaluate the effects of introduced sediment on water quality or aquatic biota, numerous other studies have evaluated the effects of road-generated sediment on water quality and aquatic habitats.

Section 303(d) of the Clean Water Act requires that water bodies violating applicable state water quality standards be identified and placed on a 303(d) list. The purpose of this protocol is to provide a consistent framework to fulfill the obligation of the FS and BLM to restore water quality limited water bodies under their jurisdiction within a reasonable time frame.

Most pollutants on NFS and BLM lands originate from nonpoint sources. Nonpoint sources of pollution are described as agricultural crops, rangeland, construction sites, forestry operations, or other similar land uses. The 303(d) list (also called the threatened or impaired waters list) contains the Montana Department of Environmental Quality's best scientific assessment of the pollution problems and causes for 795 streams, rivers and lakes across Montana. The cumulative erosion resulting from a dispersed, expanding, and unmaintained motorized trail system would be considered a nonpoint source of pollution. Many of the streams residing in the river basins described below are identified on the 303(d) list. The Montana Department of Environmental Quality describes an exhaustive listing of impaired water bodies (1998).

The types of resource effects reported by resource specialists were consistent with those reported in a 1995 General Accounting Office Report (Information on the Use and Impact of Off-Highway Vehicles). The report documents the problems, enforcement, and corrective actions associated with eight locations of intensive OHV use on NFS and BLM lands in several western states. In this report, four of the case areas described degraded riparian areas, vehicle travel along streambeds, and the eroded soils and degraded riparian vegetation associated with vehicles climbing steep stream banks. The Montana Department of Environmental Quality (1998) identified probable causes of pollution for each stream listed and categorized them as threatened or impaired (303(d)). Common causes of pollution for streams on NFS or BLM lands are habitat alterations and siltation. While numerous sources often exist for such pollution, the degraded conditions attributed to OHV use in riparian areas and stream bottoms are also likely contributors of such pollution on listed streams.

Rocky Mountain Region

Clark Fork and Kootenai River Basins: Within the Clark Fork and Kootenai River basins, public lands provide diverse riparian and aquatic habitats for a variety of native fish species, including bull trout, westslope cutthroat and redband trout, northern squawfish, sculpins, dace, sucker, mountain whitefish, white sturgeon and other lesser known species. Presently, two species in these basins in Montana, the white sturgeon and bull trout, are listed as endangered and threatened respectively, under the Endangered Species Act. Also found in these waters are many introduced fish, including largemouth and smallmouth bass, yellow perch, brook trout, bluegill, northern pike, tench, and carp (USDA 1995). Several species of resident native fish, including the ling, torrent sculpin, westslope cutthroat trout and interior redband trout, are listed as "Sensitive Species" by the FS Northern Region. The westslope cutthroat trout has been petitioned for listing under the Endangered Species Act.

Over the last 120 years, native resident fish habitat has been adversely affected by human population growth and factors associated with that growth (USDA 1995). The decline of the Kootenai River white sturgeon is primarily a result of impoundments and exploitation (USDI 1999c). For salmonid species, past and continuing management practices are causing erosion and sedimentation in various forms and by varying degrees throughout the analysis area. Mass erosion has accelerated in many locations where instability is a common natural feature of the landscape. Reduction of tree root holding capacity, increases in subsurface water, and undercutting of unstable slopes have resulted in significant sources of downstream sedimentation and local channel damage (USDA 1995).

Local extremes in water temperature have significantly increased by a reduction of shading from bank and other vegetation, flattening of bank angles, and reduction of overall water depth in the summer months from sedimentation as well as water diversion. Temperature effects tend to be localized in the mountainous areas, but in the lower

gradient and nontimbered stream reaches, temperature change can be geographically extensive (USDA 1995).

Channel condition and channel stability have been and continue to be affected, especially in areas of extensive or long-term management. Livestock grazing, road construction, logging practices, and recreational use in some areas have destabilized stream banks resulting in bank erosion, loss of cover and shading, widening and filling of channels, and accelerated lateral migration. Recently developed and implemented best management practices, forest plans, and land use plans have reduced the frequency with which new stream destabilization occurs, however, existing channel condition and stability problems are not expected to be significantly corrected if present trends continue (USDA 1995).

Quigley et al. (1996) categorized the aquatic integrity of the 16 subbasins in Montana. A basin with high aquatic integrity is defined as a basin with a mosaic of well-connected, high quality water and habitats that support a diverse assemblage of native and desired nonnative species, the full expression of potential life histories and dispersal mechanisms, and the genetic diversity necessary for long-term persistence and adaptation in a variable environment. Watersheds that are currently aquatic strongholds occur in areas of low road density. Quigley et al. (1996) found that the higher the road density, the lower the proportion of subwatersheds that support strong populations of key salmonids. Only two subbasins in Montana were identified as having high aquatic integrity: the South Fork of the Flathead River and Rock Creek. Both the hydrologic and riparian ratings recognize road densities and riparian disturbance as critical criteria for assessing integrity.

Because much of the NFS and BLM land in the Clark Fork and Kootenai River basins is steep, highly dissected and heavily vegetated, few opportunities for motorized wheeled cross-country travel exist with current OHV technology. However, some problems with motorized wheeled cross-country travel exist. Increasing use of OHV's for motorized wheeled cross-country travel is resulting in erosion of alpine meadows in the Slate Creek area of the Little Blackfoot drainage (A. Harper, pers. comm. 1999). Several forests have indicated they have site-specific locations where undesirable effects have occurred and they are addressing these areas through local travel planning.

Upper Missouri River: The Missouri River basin, which is tributary to the Mississippi River, drains much of southwestern and northern Montana east of the continental divide. The basin drains roughly 92,000 square miles, including roughly 5,000 square miles in southern Alberta and Saskatchewan, at the North Dakota state line. The Missouri River basin occupies about 60% of the State of Montana. For purposes of this assessment, the 23,292 square miles from the headwaters to the confluence with the Sun River comprise the upper Missouri River. The three headwater streams of the Missouri River emerge from their origins in Yellowstone National Park and five mountain ranges in southwestern Montana, flow through semi-arid valleys of sagebrush and grass, and converge near Three Forks. The Jefferson, Madison, and Gallatin Rivers drain a portion of the continental divide and the Madison, Spanish Peaks, Gallatin, Tobacco Root, and Gravelly Mountain Ranges. Many peaks within these ranges reach above 10,000 feet, with valleys in these drainages occurring at an average elevation of about 4,500 feet (Graham and Decker-Hess 1988). The Missouri River begins where the Jefferson, Madison, and Gallatin converge near Three Forks. During the 180-mile journey to the Sun River, the Missouri is dammed four times at Toston, Canyon Ferry, Holter, and Hauser Reservoirs.

Sixty-two stream reaches on the Gallatin, Madison, and Jefferson Rivers and their major tributaries are low-flow problem areas (Montana DNRC 1991). The majority of these stream reaches are downstream from NFS lands. Low-flow problem areas have been identified on 37 stream reaches between Three Forks and the Missouri River's confluence with the Sun River. Irrigation causes most of the seasonal low-flow conditions. Irrigation use and geological conditions in Dry Creek, Confederate Gulch, and Avalanche Creek on the east side of the Missouri River and Canyon Ferry Reservoir cause the most severe low-flow conditions (Montana DNRC 1991).

The FS and BLM consider the fluvial arctic grayling and the westslope cutthroat trout as species of special concern. The arctic grayling in Montana once had a native range consisting of streams in the upper Missouri River basin above Great Falls. Presently, fluvial grayling are found only in the Big Hole River. In 1991, the FWS was petitioned to list the fluvial arctic grayling as Endangered, under the Endangered Species Act. Currently, the Big Hole grayling are classified as category 1 candidate species, defined as "taxa for which the FWS has substantial information to support the biological appropriateness of proposing to list the species as endangered or threatened" (USDA 1997).

Westslope cutthroat trout once had a native range including both sides of the continental divide, the upper Missouri, upper and middle Columbia River, and south Saskatchewan basins. Presently, westslope cutthroat trout are found in less than 5% of their historic range in the upper Missouri River basin (Shepard et al. 1997). Factors leading to declines of westslope cutthroat trout include introductions of nonnative fishes and habitat alterations caused by land use and water use practices (Shepard et al. 1997). Montana's Department of Fish, Wildlife and Parks recently (1996) changed

angling regulations for westslope cutthroat trout in streams and rivers in the upper Missouri basin to catch and release, to lessen potential population losses caused by angling. Remaining populations within the upper Missouri basin are now restricted to isolated headwater habitats. Many of these habitats have been impacted by land and water management activities and nonnative salmonids (Shepard et al. 1997).

Land use practices, including livestock grazing, timber harvest, streamside roads, and irrigation diversions, have adversely impacted stream channel stability and the associated aquatic habitats necessary for westslope cutthroat trout (USDA 1997 and Shepard et al. 1997) in the upper Missouri River basin. Many locations of erosion associated with OHV use on roads or trails have been identified on national forests east of the continental divide. Discussions with aquatic resource specialists suggest that motorized wheeled cross-country travel occurs throughout the region. Areas most notably mentioned were: the Whitetail-Pipestone area on the Beaverhead-Deerlodge National Forest, areas throughout the Big Belt Mountains, the Little Belt Mountains (Tenderfoot Creek), the Judith Mountains, and the Big Snowy Mountains. Effects included streamside trails that had moved into the stream itself, numerous stream crossings, and OHV riders using ephemeral channels for trails and climbing stream banks. These activities were resulting in eroding streambanks, compaction of riparian soils, and a loss of riparian vegetation. Most resource specialists thought that these effects and activities were increasing, however, these effects were highly variable and often localized to a specific stream or reach of stream.

Upper Yellowstone River: The Yellowstone River near Livingston drains approximately 3551 square miles (USDI 1997b). The Yellowstone is one of the last major free-flowing rivers in the contiguous 48 states. It originates in northwestern Wyoming and flows into Yellowstone Lake in Yellowstone National Park before entering Montana at Gardiner. For the purposes of this discussion, the upper Yellowstone River is considered that part of the drainage above Big Timber, Montana. From the park boundary the river flows north through the Paradise Valley, bordered on the east by the Absaroka Mountains and on the west by the Gallatin Range (Graham et al. 1988). Diversions to irrigate approximately 24,000 acres occur upstream from Livingston (USDI 1997b). Average annual discharge at Livingston is 3,764 cubic feet/second (USDI 1997b).

At the time of early European settlement of Montana, Yellowstone cutthroat trout were the only native trout within the Yellowstone River drainage. An estimated 4,260 miles of occupied habitat and as many as six lakes support cutthroat trout. At present, an estimated 428 miles of stream support 38 genetically pure Yellowstone cutthroat trout populations. Most current populations are at risk from either hybridization, demographic or stochastic influences. According to Montana fish stocking records, 31 of the 38 streams and/or watersheds which support current populations have been stocked with at least one of the following fish species: rainbow trout, brook trout, brown trout, Yellowstone cutthroat trout, or other trout of unidentified speciation (May 1998).

The population viability of 22 out of the 38 populations was at risk due to past and present management activities. However, cross-country travel of OHV's on NFS and BLM lands in the upper Yellowstone River basin is minimal and the effects of motorized wheeled cross-country travel are site-specific (B. May, pers. comm. 1999). Topography and vegetation severely limit cross-country travel of OHV's on NFS lands, thus it appears that most users stay on roads and trails. Most OHV crossings are associated with trails. This type of activity is degrading the net quality of streams (B. May, pers. comm. 1999). It is difficult to tie infrequent trail crossings to cumulative effects. In the Yellowstone Cutthroat Trout Status report (1998), recreation was seldom identified as a land use that was compromising the viability or habitat of Yellowstone cutthroat trout.

Great Plains Region

This region includes the Great Plains east from the Rocky Mountains to the western boundary of the Red River watershed in North Dakota, or approximately 98 degrees longitude. This area is drained by two major river systems, the Missouri River, which is tributary to the Mississippi River, and the Red and Souris Rivers, which are tributaries to Hudson Bay. The Missouri River is the dominant hydrologic feature of the northern Great Plains. This region includes the Yellowstone drainage below Big Timber, Montana. Three of the four national grasslands administered by the FS Northern Region are in this region. The Little Missouri and Cedar River National Grasslands are in North Dakota, along with about 60,000 acres of BLM lands. The majority of BLM lands are located in Bowman and Dunn counties. The Grand River National Grassland is located in northwestern South Dakota, along with approximately 279,000 acres of BLM lands.

Snowpack ranges from 10 to 40 inches. There are more perennial streams in the eastern portion due to greater rainfall combined with snowmelt. Perennial streams in the western portion flow from mountains or are fed by groundwater. In some places, infiltration of precipitation to shallow groundwater is the only source of stream flow (Johnson 1988).

The aquatic resource effects associated with OHV use throughout the area appear to be minimal. Most of the

region is quite arid. On the Grand River National Grassland of South Dakota, most OHV use is by hunters and permittees. No erosion resulting from motorized wheeled cross-country travel by OHV's was noted on the grassland. On BLM lands in South Dakota, motorized wheeled cross-country travel did not appear to cause erosion or compaction of riparian soils, however, localized erosion on hillslopes and ridgetops was occurring as result of OHV travel (C. Berdan, pers. comm. 1999). On the Little Missouri National Grassland, motorized wheeled cross-country travel is extensive, resulting in rilling and gullying on hillslopes and ridges (S. Thompson, pers. comm. 1999). Aquatic resource effects from this activity are localized and include erosion in valley bottoms (S. Rinehart, pers. comm. 1999).

The effects of motorized wheeled cross-country travel in Montana are more variable. Public land in this region of Montana is administered mostly by the BLM. The largest aggregation of land administered by the BLM is near the Fort Peck Dam in northeastern Montana. Because the area is quite arid and OHV use is very dispersed, few effects from motorized wheeled cross-country travel are reported (R. Neumiller, pers. comm. 1999). The high clay content of local soils makes cross-country travel of OHV's during wet periods almost impossible over much of the area. The clay soils shrink and swell between periods of wet and dry. Thus, soil compaction during drier periods is often short lived (R. Neumiller, pers. comm. 1999). No documented occurrences of riparian erosion or stream channel degradation exist for the BLM land administered out the Great Falls Field Office (T. Day, pers. comm. 1999). There is relatively little motorized wheeled cross-country travel on the Beartooth Ranger District of the Custer National Forest (P. Pierson, pers. comm. 1999). While there is considerable use of OHV's in the Pryor Mountains, most travel is limited to roads and trails. Other observations from the Custer National Forest indicate that many old, unsurfaced travel routes have developed a history of OHV use and contribute sediment to streams as a result of use under wet conditions (USDA 1999b).

Within this region, the pallid sturgeon is the only fish species on the T&E species list. In 1990, the FWS listed the pallid sturgeon as endangered. Pallid sturgeon remains one of the most rare fishes of the Missouri and Mississippi River basins (Dryer and Sandoval 1993). The historic range of the pallid sturgeon encompassed the middle and lower Mississippi River, the Missouri River, and the lower reaches of the Platte, Kansas, and Yellowstone Rivers. Although rare, the pallid sturgeon is widely distributed in the Missouri River and in the Mississippi River downstream from the Missouri River (Dryer and Sandoval 1993). Since 1980, reports of the most frequent occurrences of pallid sturgeon within the analysis area are from the Missouri River between the Marias River and Ft. Peck Reservoir in Montana; between Ft. Peck Dam and Lake Sakakawea (near Williston, North Dakota); within the lower 70 miles of the Yellowstone River to downstream of Fallon, Montana; and in the headwaters of Lake Sharpe in South Dakota (Dryer and Sandoval 1993).

Both the sicklefin chub and the sturgeon chub are considered candidate species, by the FWS, for listing on the T&E species list. Historically, the sturgeon chub and sicklefin chub were widespread throughout the main stem Missouri River and its larger tributaries, and the middle Mississippi River downstream of the confluence with the Missouri River (USDI 1999b). The primary factors associated with the decline of sturgeon and sicklefin chub are the development and continued operation of water resource projects within the Missouri River basin, including dams, reservoirs, river training structures and levees for navigation and flood control, and water diversion projects (USDI 1999a). The past and continuing destruction and alteration of the big river functions and habitat once provided by the Missouri and Mississippi Rivers is believed to be the primary cause of declines in reproduction, growth, and survival of sturgeon chub, sicklefin chub, and other big-river fish such as the endangered pallid sturgeon. Because of the great size of the rivers that these chubs inhabit, and the apparent minimal effects of OHV cross-country travel reported across the region, it is unlikely that cross-country travel of OHV's, at their current level, would further compromise the status of the sturgeon chub, sicklefin chub and pallid sturgeon. Paddlefish and the blue sucker (BLM species of special concern) have also been largely affected by impoundments. Other species of special concern are the northern redbelly dace, pearl dace and the shortnose gar.

North American Prairie Region

The region begins at the western boundary of the Red River watershed, or approximately 98 degrees longitude, and continues to the eastern border of North Dakota and South Dakota. Within this region there are no fish species listed as threatened or endangered by the FWS. The Sheyenne National Grassland is the only NFS land in the prairie division and is located in the southeastern corner of North Dakota. Much of the grassland is ponds, wetlands, and seasonal wetlands (B. Stotts, pers. comm. 1999). The north end of the grassland is flat and borders a short segment of the Sheyenne River. OHV travel on the Sheyenne National Grassland is concentrated on the hummocks and dunes of the central and southern part of the grassland. Although erosion resulting from this type of use is common, it is neither near nor connected to any riverine environments. Because the north end of the grassland is relatively flat, it does not offer the same attraction as the swales and dunes in the central and southern part of the grassland. Little motorized wheeled cross-country travel of OHV's occurs

on land near the Sheyenne River (B. Stotts, pers. comm. 1999).

Species Descriptions and Habitat Requirements

Descriptions are provided for listed species and only key sensitive species or species of special concern because of the broad programmatic nature of this document. Key sensitive species are those in which motorized wheeled cross-country travel has potential for impact.

White sturgeon: This endangered species historically occurred on the Pacific coast from the Aleutian Islands to central California. It occurs in the Columbia River system and its major tributary, the Kootenai River. They are generally long-lived, with females living from 34 to 70 years. Females normally require a longer period to mature than males, with females spawning between 15 to 25 years of age. White sturgeon are broadcast spawners in large rivers during peak flows from April through July. The Kootenai River population is one of 18 landlocked populations known to occur in western North America. White sturgeon is mainly a bottom feeder and feeds on mostly fishes and a wide variety of invertebrates (Scott and Crossman 1973). The decline of the white sturgeon is primarily a result of impoundments and exploitation (USDI 1999c).

Pallid sturgeon: This endangered species is well adapted for life at the bottom of swift, large, turbid and free flowing rivers. Pallid sturgeon evolved in the diverse environments of the Missouri and Mississippi Rivers. Floodplains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters formed the large-river ecosystem that provided macrohabitat requirements for pallid sturgeon and other native large-river fish (Dryer and Sandoval 1993). These habitats within the analysis area have been drastically altered. “On the mainstem of the Missouri River, approximately 36% of riverine habitat within the pallid sturgeon’s range was eliminated by construction of six massive earthen dams between 1926 and 1952 and another 40% has been channelized. The remaining 24% has been altered due to changes in water flows caused by dam operations” (Dryer and Sandoval 1993).

The range of water depths where pallid sturgeon were frequently found in South Dakota is 7-20 feet. In Montana, pallid sturgeon were captured from depths that ranged from 3.9-12.1 feet, but they were captured in deeper waters during the winter (Dryer and Sandoval 1993). During late summer in North Dakota, pallid sturgeon were captured at depth that ranged from 6.9-24.9 feet (Dryer and Sandoval 1993). Because of the great size of the rivers that pallid sturgeons inhabit, the typical water depths in which they have been found, and the apparent minimal effects of OHV cross-country travel reported across the region, it is unlikely that motorized wheeled cross-country travel, at the current levels, would further compromise the status of the pallid sturgeon.

Bull trout: This is a threatened species within the Columbia River basin. The following discussion of bull trout habitat requirements is taken from Montana Bull Trout Scientific Group (1998). The majority of migratory bull trout spawning in Montana occurs in a small percentage of the total stream habitat available. Spawning takes place between late August and early November, principally in third and fourth order streams. Spawning adults use low gradient areas (less than 2%) of gravel/cobble substrate with water depths between 0.1 and 0.6 m and velocities from 0.1 to 0.6 m/s. Proximity of cover for adult fish before and during spawning is an important habitat component. Spawning tends to be concentrated in reaches influenced by groundwater where temperature and flow conditions may be more stable. The relationship between groundwater exchange and migratory bull trout spawning requires more investigation. Spawning habitat requirements of resident bull trout are poorly documented.

Successful incubation of bull trout embryos requires water temperatures below 8 degrees C, less than 35-40% of sediments smaller than 6.35 mm in diameter, and high gravel permeability. Eggs are deposited as deep as 25.0 cm below the streambed surface and the incubation period varies depending on water temperature. Spawning adults alter streambed characteristics during redd construction to improve survival of embryos, but conditions in redds often degrade during the incubation period. Mortality of eggs or fry can be caused by scouring during high flows, freezing during low flows, superimposition of redds, or deposition of fine sediments or organic materials. A significant inverse relationship exists between the percentage of fine sediment in the incubation environment and bull trout survival to emergence. Entombment appeared to be the largest mortality factor in incubation studies in the Flathead drainage. Groundwater influence plays a large role in embryo development and survival by mitigating mortality factors.

Rearing habitat requirements for juvenile bull trout include cold summer water temperatures (15 degrees C) provided by sufficient surface and groundwater flows. Warmer temperatures are associated with lower bull trout densities and can increase the risk of invasion by other species that could displace, compete with, or prey on juvenile bull trout. Juvenile bull trout are generally benthic foragers, rarely stray from cover, and they prefer complex forms of cover. High sediment levels and embeddedness can result in decreased rearing densities. Unembedded cobble/rubble substrate is preferred for cover and feeding and also pro-

vides invertebrate production. Highly variable streamflow, reduction in large woody debris, bedload movement, and other forms of channel instability can limit the distribution and abundance of juvenile bull trout. Habitat characteristics that are important for juvenile bull trout of migratory populations are also important for stream resident subadults and adults. However, stream resident adults are more strongly associated with deep pool habitats than are migratory juveniles.

Both migratory and stream-resident bull trout move in response to developmental and seasonal habitat requirements. Migratory individuals can move great distances (up to 250 km) among lakes, rivers, and tributary streams in response to spawning, rearing, and adult habitat needs. Stream-resident bull trout migrate within tributary stream networks for spawning purposes, as well as in response to changes in seasonal habitat requirements and conditions. Open migratory corridors, both within and among tributary streams, larger rivers, and lake systems are critical for maintaining bull trout populations.

Interior redband trout: This sensitive species exhibits a wide variety of life history strategies. Anadromous stocks of redband (steelhead) trout historically migrated up to 1,600 kilometers to the middle and upper Columbia River drainage (Behnke 1992). Many of these stocks are now extinct due to dams impeding upstream migration. The gerrard strain of rainbow trout (kamloops) of Kootenay Lake, British Columbia, Canada, represents an adfluvial form, which attains a large body size due to their piscivorous diet of kokanee salmon. Kamloops redband trout rear in Kootenay Lake and reportedly spawn in Kootenai River tributaries in Montana (Huston 1998). Fluvial stocks occupy larger rivers and spawn in smaller tributaries. Resident populations inhabit smaller tributaries and headwater areas for their entire lives.

Behnke (1992) differentiates the redband-rainbow-golden-steelhead trout complex into six "subspecies," one of which is the Columbia/Frazier redband, including the Kootenai River redband.

The interior redband range includes this area of the Kootenai River (and tributaries including the entire Yaak River drainage) in Montana. The Kootenai River redband trout in Montana represent the furthest inland penetration of redband trout in the Columbia River basin. Historically, the interior redband trout occupied much of the Kootenai River system below Kootenai Falls, including the Yaak River. Now, only a few remnant populations exist due to habitat degradation and planting of nonnative stocks of coastal rainbow trout. Genetic introgression with these nonnative stocks is thought to be the principle cause of reductions in distribution and abundance throughout its historic range (Behnke 1992). Much of the controversy surrounding the redband is over the genetic integrity of remaining populations, and the imminent danger of hybridization with nonnative, hatchery propagated fish.

Westslope cutthroat trout and Yellowstone cutthroat trout: Westslope and Yellowstone cutthroat trout, both sensitive species, have two distinctive life forms: migratory and resident. Migratory life forms are either fish that spend most of their adult lives in lakes (adfluvial) or rivers (fluvial) and migrate into tributaries to spawn. Resident cutthroat trout are fish that generally spend their entire lives in the tributaries of which they were reared, and are usually much smaller in size than their migratory counterparts. Spawning takes place from March to early July with water temperature near 10% Celsius (McIntyre and Rieman 1995). Westslope cutthroat trout begin to sexually mature at age three and usually are spawning by ages four and five (McIntyre and Rieman 1995). Spawning adults can be as small as 15 cm, with females containing as few as 100 eggs (Meehan and Bjornn 1991). Fry will emerge from spawning gravels from June to mid-July and will usually stay within their natal streams from one to four years, if they are the migratory form.

Montana arctic grayling: The Montana arctic grayling is a sensitive species. Fluvial grayling in the Big Hole River undergo extensive upstream and downstream migrations (Kaya 1992). While migratory patterns differ among streams, a common pattern is movement upstream to spawning and summering areas and downstream to wintering areas with large volumes and deep pools (Reynolds 1989, Shepard and Oswald 1989). Big Hole River grayling have been observed to migrate as far 50 miles. It is not known whether grayling in other Montana streams are also migratory (Kaya 1992).

Grayling in Montana occupy habitats with low gradients of up to 20 feet per mile, water velocities of 1 to 2 ft/s, water depths of 1 to 3 ft, spawning substrate of coarse sand to fine gravel, and with beds of macrophyte vegetation being common (Vincent 1962). Liknes (1981) found the greatest number of grayling on the Big Hole River in a section near Wisdom that had a gradient of 0.3% and a mean velocity of 0.7 ft/s.

Recent observations have indicated that an important component of fluvial grayling habitat is the presence of pools. Pools provide deep, low-velocity habitat preferred by grayling (Kaya 1992). Electrofishing surveys have indicated that fluvial grayling in Montana and Alaska spend most time in pools rather that riffles (Hubert et al. 1985, Reynolds 1989, Shepard and Oswald 1989). Pools in the Big Hole River are defined by Liknes (1981) as areas with maximum depths greater than 0.5 m, slow water velocities, smooth water velocities, and smooth surfaces.

ENVIRONMENTAL CONSEQUENCES

Introduction

The impacts of roads and trails on aquatic resources have been documented in the affected environment and are considered part of the existing condition. In all alternatives, site-specific analyses would be completed in subsequent planning at the local level to determine site-specific mitigation needed to maintain or improve aquatic conditions where necessary. The intensity of motorized wheeled cross-country use on NFS and BLM lands within the analysis area is expected to increase. This analysis evaluates the relative probability, associated with each alternative, of further degradation of riparian areas and aquatic habitats, and the vulnerability of sensitive salmonids to increased angling pressure and poaching on NFS and BLM lands within the analysis area.

Effects Common To All Alternatives

None of the alternatives restrict use where OHV user-created roads and trails have been established in riparian areas, areas of unusual erosivity, or areas of critical aquatic habitats. However, the agencies have the authority to immediately close a road, trail, or area when considerable adverse effects are occurring (36 CFR 295.5 and 43 CFR 8341.2 and 8364.1). Because OHV use is not evenly distributed across NFS and BLM lands in the analysis area, the effects associated with this use are concentrated in intensively used areas. The amount of sediment routed to streams and rivers in the analysis area is highly variable and dependent upon numerous factors that cannot be easily quantified at this level.

Sensitive Fish: This proposal is programmatic in nature; therefore, the discussion of effects will be general and qualitative rather than quantitative. The following assessment does not consider, because of the programmatic nature of this evaluation and lack of site-specific information, individual species ecological or biological requirements. Individual species requirements would be addressed in site-specific project analyses. Potential site-specific effects of implementing any alternative, on any given species or habitat, will be evaluated in a second level, site-specific project analysis.

The criteria for evaluating potential effects to sensitive species are: 1) would implementation of the alternatives result in a loss of viability or distribution throughout the analysis area of the sensitive species; or 2) would implementation of the alternatives move sensitive species toward federal listing under the Endangered Species Act? An assumption made here is that all regulations, policies, and direction of the FS and BLM would be followed with the implementation of any alternative; therefore, none of the alternatives, if fully implemented, would result in loss of viability of these species or move toward federal listing.

No Action Alternative

The No Action Alternative is the least restrictive for motorized wheeled cross-country use. Motorized wheeled cross-country use of OHV's in areas of intensive use would likely continue to increase, as would the negative effects of such use in riparian areas. OHV user-created roads would incrementally increase road densities. Due to topography and vegetation, this process would likely occur more rapidly in the arid and less steep terrain east of the continental divide. Many of the effects associated with water and water resources are often localized in arid geographic settings where little fish habitat is available, such as the many isolated and fragmented lands administered by the BLM. Further localized degradation of fish habitat by motorized wheeled cross-country travel may occur. This would be particularly true for lands around the Dillon Field Office of the BLM, the Big Belt Mountains, Little Belt Mountains, the Snowies, areas of eastern Montana, the Little Missouri National Grassland, and areas of the Little Blackfoot drainage. West of the divide, widespread motorized wheeled cross-country use is less likely due to topography and vegetation. User-created roads and trails generally fail to meet the riparian and road management objectives outlined in the Inland Native Fish Strategy (USDA 1995). Implementation of this alternative would still allow wheeled motorized access to riparian areas and stream channels. Erosion and riparian degradation would likely continue to occur with the No Action Alternative. The effects would likely be more pronounced east of the continental divide.

The Montana Department of Environmental Quality (1998) identified probable causes of pollution for each stream listed as threatened or impaired (303(d)). Common causes of pollution for streams on NFS or BLM lands are habitat alterations and siltation. While numerous sources often exist for such pollution, the degraded conditions attributed to OHV use in riparian areas and stream bottoms are also likely contributors of such pollution on listed streams. Because sediment and aquatic habitat alterations associated with OHV traffic would likely continue to increase, it is probable that water quality on some of the 303 (d) streams would, in some cases, further deteriorate. These effects would likely be most pronounced east of the continental divide.

It is conceivable that isolated populations of westslope cutthroat trout, bull trout, redband trout, torrent sculpin, and Yellowstone cutthroat trout could become more vulnerable to angling and poaching as more people utilize cross-

country motorized travel to access streams that were formerly accessible only by nonmotorized travel. It is also conceivable that as the number of trail-stream crossings increase, salmonid redds could be at greater risk from disturbance at stream fords. This scenario is more likely as OHV technology continues to improve, producing machines more capable of accessing difficult terrain. The probability of this occurring is greatest with the No Action Alternative. Salmonid habitat and habitat for torrent sculpin may be compromised in the future as technology improves on the west side of the divide.

The primary factors associated with the decline of sturgeon and sicklefin chub are the development of water resource projects within the Missouri River basin during the 1950's and 1960's, the continued maintenance and operation of these projects as well as the construction and operation of main stem and tributary dams and reservoirs, construction of river training structures and levees for navigation and flood control, respectively, and water diversion projects have contributed to the past and present destruction and modification of sturgeon chub and sicklefin chub habitat (USDI 1999b). The past and continuing destruction and alteration of the big river functions and habitat once provided by the Missouri and Mississippi Rivers is believed to be the primary cause of declines in reproduction, growth, and survival of sturgeon chub, sicklefin chub, and other big-river fish such as the endangered pallid sturgeon. The decline of the Kootenai River white sturgeon is primarily a result of impoundments and exploitation (USDI 1999c).

Because of the great size of the rivers that these chubs and sturgeons inhabit, and the apparent minimal effects of OHV cross-country travel reported across the region, it is unlikely that cross-country travel of OHV's, at their current level, would further compromise the status of the white sturgeon, pallid sturgeon, sturgeon chub and sicklefin chub.

The conclusion of effects for listed and sensitive species are as follows:

Bull trout	May affect, not likely to adversely affect
Pallid sturgeon	No effect
White sturgeon	No effect

Alternatives 1, 2 and 5

Effects of Alternatives 1, 2 and 5 are similar with respect to streams and riparian habitats. These alternatives would prohibit motorized wheeled cross-country travel yearlong with a few exceptions. Motorized traffic would be limited to roads and trails. Any of these alternatives would provide the greatest reduction in stream bank erosion, compaction of riparian soils, and loss of riparian vegetation. Habitat alterations and sediment generated by OHV use are not expected to spread to new areas. These alternatives provide a greater reduction in sediment and habitat alterations as sources of impairment to 303 (d) streams. By reducing motorized wheeled cross-country access to remote and isolated salmonid populations, Alternatives 1, 2, and 5 would reduce the risk in losses of sensitive fishes. This risk reduction would be most pronounced east of the continental divide for westslope cutthroat trout and Yellowstone cutthroat trout. Effects as a result of the exceptions under Alternatives 2 and 5 are insignificant and discountable and are not likely to affect streams and riparian habitats, nor increase the vulnerability of isolated fish populations to further losses.

The conclusion of effects for listed and sensitive species are as follows:

Bull trout	May affect, not likely to adversely affect
Pallid sturgeon	No effect
White sturgeon	No effect

Alternative 3

Effects under this alternative would be similar to the effects described under Alternative 2 in areas where motorized wheeled cross-country travel is restricted yearlong. No change would occur in motorized wheeled cross-country travel on the Kootenai, Flathead and Bitterroot National Forests. East of the continental divide, effects would be the same as those discussed for Alternative 2. Topography and vegetation limit widespread cross-country use of OHV's in the open areas on the Kootenai, Flathead and Bitterroot National Forests. Widespread degradation of streams and riparian habitats is unlikely as a result of motorized wheeled cross-country traffic but may have localized impacts. Unless addressed in site-specific planning, specific areas of erosion, such as those in the Little Blackfoot drainage, would likely continue to be aggravated by motorized wheeled cross-country travel. Because sediment and aquatic habitat alterations associated with OHV traffic would likely continue to increase, water quality on some of the 303 (d) streams may further deteriorate.

Effects to westslope and Yellowstone cutthroat trout would be similar to those in Alternatives 1, 2 and 5 because access would be limited to nonmotorized travel in many areas where these species occur. Isolated populations of westslope cutthroat trout, bull trout, and redband trout west of the continental divide could become more vulnerable to angling pressure and poaching as more people utilize motorized wheeled cross-country travel to access isolated streams.

Given the topography and vegetation over most of western Montana, this risk is relatively small over most of the region.

The conclusion of effects for listed and sensitive species are as follows:

Bull trout	May affect, not likely to adversely affect
Pallid sturgeon	No effect
White sturgeon	No effect

Alternative 4

Alternative 4 would change travel direction across the entire analysis area. All open areas would be changed to a seasonal restricted/limited designation, and all seasonally restricted/limited areas would be changed to a new seasonal designation. The new seasonal designation would allow motorized wheeled cross-country travel between June 15 and August 31, and between December 2 and February 15. The same exceptions for cross-country OHV travel associated with Alternatives 2 and 3 would apply to Alternative 4 outside of the specified dates.

Because the topography and vegetation make widespread motorized wheeled cross-country use west of the continental divide unlikely with current technology, the effects of Alternative 4 would not differ substantially from those associated with the No-Action Alternative or Alternative 3. Compared with the No Action Alternative, Alternative 4 would reduce the number of days that motorized wheeled cross-country travel could occur east of the continental divide. Motorized wheeled cross-country travel under Alternative 4 may result in some stream bank erosion, compaction of riparian soils, and loss of riparian vegetation in Montana, North Dakota and South Dakota. Water quality on some of the 303 (d) streams may further deteriorate because sediment and aquatic habitat alterations associated with OHV traffic would likely continue. Motorized wheeled cross-country travel may result in a greater risk for angling pressure and poaching of isolated populations of westslope and Yellowstone cutthroat in Montana. Overall, the effects of this alternative would be less than those associated with the No Action Alternative because there are fewer days during which this activity could occur. The number of potential stream fords could also be reduced because motorized wheeled cross-country travel would be restricted during the fall months. This seasonal restriction could also reduce the risk of OHV's driving over the redds of fall spawning fish such as the bull trout. East of the continental divide, the effects of this alternative would likely fall between those identified for the other action alternatives and the No Action Alternative. The effects on white sturgeon, pallid sturgeon, sicklefin chub and sturgeon chub are the same as the No Action Alternative.

The conclusion of effects for listed and sensitive species are as follows:

Bull trout	May affect, not likely to adversely affect
Pallid sturgeon	No effect
White sturgeon	No effect

Cumulative Effects

The greatest cumulative effects exist in areas where existing road densities are contributing to the degradation of aquatic habitat and watershed resources. These impacts occur mostly in the Rocky Mountain region of the analysis area and are considered the baseline conditions. If motorized wheeled cross-country travel continues and use increases as projected, it would continue to cumulatively impact the aquatic and watershed resources. User-created roads and trails can be more impactive than designed roads and trails, since segments are created and unmitigated in sensitive areas like riparian areas or on sensitive and erodable soils. The prohibition of motorized wheeled cross-country travel would maintain conditions in their current condition in the short term until site-specific travel planning is completed. Alternatives 1, 2 and 5 would provide the best opportunities to restore aquatic habitat and watershed resources in the long term, because areas would be prioritized for site-specific planning and restoration would be planned.

Comparison of Alternatives

The No Action Alternative would provide no risk reduction for further degradation of aquatic resources. This is the least desirable alternative with respect to water quality and fisheries. Alternatives 1, 2 and 5 would provide the greatest reduction in risk for further degradation of aquatic resources by cross-country OHV use across the entire analysis area. Alternatives 1, 2 and 5 are the most desirable with respect to aquatic resources. Alternative 3 would provide the same benefits as Alternatives 1, 2 and 5 east of the continental divide. Alternative 3 is identical to the No Action Alternative with respect to aquatic resource effects to lands west of the continental divide. The effects associated with Alternative 4 would likely fall between those identified for the No Action Alternative and Alternatives 1, 2 and 5.

SOILS

AFFECTED ENVIRONMENT

Soils are the fundamental natural resource on the landscape. Each soil is a three-dimensional body with its own unique physical and chemical properties. Soils result from the interaction of climate and living organisms (plants and animals) acting on geologic material through time, under conditions modified by local relief and topography (Jenny 1930). Soils vary with slope, depth, texture, color, structure, organic matter, rock content, and pH, as well as the nutrient status and capacity to hold water to support plant and animal life and land use. These same soil properties also affect watersheds, wildlife and vegetation, and land uses such as agriculture, roads, trails, and recreation.

Soils have many properties that fluctuate with the seasons. Biologic activity is slowed or stopped if the soil becomes too cold, too hot, too moist or too dry. Flushes of organic matter come when leaves fall or grasses die. The soil resource is not static as pH, soluble salts, amount of organic matter, carbon-nitrogen ratio, number of microorganisms, soil fauna, temperature and moisture all change with seasons.

The analysis area has over 1,000 different soil types in 6 of the 12 soil orders. These soils vary dramatically, often over very short distances, and respond differently to use and management. Major uses of these soils are for range land, forest land, agricultural production, watersheds and recreation.

Most, if not all, of the soil data needed for site analysis, interpretation and assessment as a result of this FEIS is available from agencies, such as Natural Resource Conservation Service (NRCS), FS and the BLM. Soil surveys are available on a county basis, commonly at a scale of 1:24,000.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

Impacts to soils would vary according to a particular soil type, topsoil properties, season of use, amount and type vegetation, as well as microclimatic conditions. Soil compaction is a common problem derived from any weight bearing traffic on a soil under selected soil conditions. This weight includes people, animals, hail, and wheeled vehicles. The degree of disturbance and compaction varies by site and would correspond to the type of driver, vehicle, tire tread, tire width, weight, angle of force to the soil, and vegetative cover. Usually, compaction increases as tire size

Pioneered roads can result in loss of protective vegetation and exposure to the forces of erosion, Helena National Forest. Photo courtesy of Montana Wilderness Association

decreases, or vehicle weight increases, and forces such as turning, accelerating or braking are added. Soil compaction is greatest when soils are moist and least when they are wet or dry. Soil compaction is reduced or eliminated in light and some moderate compaction conditions, especially on loamy soils high in organic matter, by the effects of freeze and thaw cycles during the seasons.

Wind erosion would increase as protective vegetative cover is reduced below 50% and where the landscape is open enough to allow strong or gusting winds to detach soil particles.

Water erosion in the form of sheet and/or rill erosion would be most common on poorly designed and or maintained roads and trails during periods of high soil moisture, rainfall and/or melting snow. Sheet and/or rill erosion can quickly occur on sensitive soils with concentrated cross-country travel. This is common when roads and trails on sensitive soils lose protective vegetation and become exposed to the forces of erosion.

Sheet and rill erosion would be greatest on erosive soils such as those forming from acid shales, clay shales or silt stones. Shallow soils on steep southern and/or western aspects are also sensitive to erosion. Soils least susceptible to erosion are forested and heavily vegetated grassland soils. Soils on glacial till landscapes with nearly level slopes protected by dense sod-forming vegetation would have little, if any, soil compaction or erosion from wind or water.

The surface horizon or topsoil is the lifeblood of a soil. It has the most humus, nutrients, seed source, structure and microorganisms needed by a productive plant community to stabilize the site. Loss of topsoil by accelerated erosion, or compaction, makes even the best soil more difficult to

stabilize or rehabilitate. Plant roots improve soil structure, increase water infiltration, and help anchor the soil and hold it in place. A diverse vegetative cover offers the best protection of the soil surface against accelerated water erosion.

No Action Alternative

This alternative, if OHV numbers and use increase as in the past, has the greatest potential impact to the soil resource. Areas currently open would allow for increased use of roads and trails as well as dispersed use of vehicles. This dispersed use could cause a small increase in soil erosion on roads and trails. Any increase in motorized wheeled cross-country travel, especially in a concentrated manner, has the potential to damage sensitive upland and riparian soils.

Alternative 1

In this alternative accelerated erosion would be limited to roads and trails. Impacts to the soil resource as a whole would be minimal as well as widely dispersed.

Alternative 2

Direct and indirect effects to soils and vegetation would be very similar to Alternative 1. Allowing for camping and limited cross-country travel would slightly increase impacts to the soil resource. The impacts to the soil resource are estimated to be less than 1% of the watershed or land resource area.

Alternative 3

OHV travel impacts from administrative or permitted use, big game retrieval or seasonal use are limited and would not occur often enough in the same route to remove sufficient vegetation to accelerate soil erosion. Any impacts to soils from these changes would be minimal and are estimated to occur on less than 1% of a watershed or land resource area. Overall, accelerated soil erosion from motorized wheeled cross-country travel would be reduced under this alternative except if motorized wheeled cross-country travel were to occur in a concentrated manner.

Alternative 4

The change in time periods available for OHV use would reduce soil erosion by reducing and shifting cross-country OHV use to periods when soils are likely to be dry or frozen.

Alternative 5

The impacts would be the same as Alternative 2.

Cumulative Effects

OHV impacts to soils would vary by the soil types, climate, type and amount of vehicle use. Direct short-term OHV impacts to the soil during moist or wet periods would alter soil structure and porosity. This would affect permeability, infiltration rates, soil/air and soil/water relationships and bulk density. Long-term impacts would reduce the organic matter content and reduce nutrient cycling in most high use areas. In the long term, while small areas of concentrated use would have significant impacts, overall there would be no significant loss of soil due to the very small amount of landscape impacted by OHV's.

AIR QUALITY

AFFECTED ENVIRONMENT

Air quality in the analysis area is excellent and due to remoteness, low population/vehicle levels and a general lack of industry, air quality is likely to remain high. Generally, ambient pollutant levels are well below measurable limits except at or near populated areas. Public lands in Montana, North Dakota and South Dakota within the analysis area are designated as having Class II air quality (good). Class I air quality areas in the FEIS area are limited to designated Wilderness Areas, Wilderness Study Areas, Indian Reservations, Glacier National Park and two National Wildlife refuges. Several populated areas such as Billings, Bozeman, Missoula, and Kalispell are designated as nonattainment Class II areas. No areas are designated Class III.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

OHV recreational use normally occurs during June to November in the analysis area. This time period is when climate, soils, and vegetation are usually at their driest. Fugitive dust levels would be temporarily and slightly increased by normal OHV travel in most of the analysis area during this time period. Fugitive dust levels would be lowest or not occur at all during November 15 to June 15. During this time most soil surface horizons are frozen, covered with snow or moist (Caprio and Nielsen 1992).

Areas most susceptible to slight, temporary increases in fugitive dust have soils with high levels of silt and/or carbonates in their surface horizons. These soil areas dominate eastern and central Montana. Areas least susceptible to increases in fugitive dust are those having soils with high levels of sand or clay in their surface horizons. These soil

areas are located in granitic areas of western Montana or the sedimentary clay shale areas of eastern Montana. Maps of these areas are available from existing soil surveys.

Motorized vehicle emissions cause a very small short-term impact to localized air quality. The amount and type of emissions will vary by the number of motors, type(s) of motor, motor size, and its burning efficiency. Motor emissions, like dust, are normally quickly dispersed by thermal drafts and winds. OHV emission pollutant levels can be concentrated, usually during winter months, in localized areas that have frequent thermal inversions.

No Action Alternative

This alternative has the greatest potential to influence and degrade air quality in the immediate area. The current amount of OHV travel on available FS and BLM public roads and trails is unknown. Any actual increases in OHV travel on existing or new roads and trails would have a corresponding increase in motor emissions and fugitive dust in the immediate area.

Alternatives 1 and 2

These alternatives prohibit motorized wheeled cross-country travel. In this scenario only a substantial and constant increase in OHV traffic on roads and trails would cause a measurable effect outside of the immediate area. Any increase in air pollutant levels are expected to correspond to those experienced on nearby unsurfaced federal, county and rural subdivision roads. OHV impacts from administrative travel, big game retrieval, or permitted use are very minor and would not occur often enough in the same place to remove sufficient vegetation to expose soil surfaces as a source of fugitive dust.

Alternative 3

This alternative has the same effect as Alternative 2 for those areas where OHV's are restricted. In the other areas, this alternative has the same effect as the No Action Alternative.

Alternative 4

Impacts to air quality are similar to the No Action Alternative. The time period for open travel is reduced with a reduction in potential fugitive dust and emissions.

Alternative 5

The impacts would be the same as Alternative 2.

Cumulative Effects

OHV impacts to air would vary by area, time of year, and amount of use. Most short-term impacts would be in areas having graveled or nongraveled county or public land access roads. Increases in fugitive dust and gaseous pollutants would be insignificant, except in the immediate vicinity of concentrated use. In the long-term, there would be no significant degradation of air quality due to the very small amount of impact from OHV's.

MINERALS

AFFECTED ENVIRONMENT

Energy mineral resources in the analysis area include oil and gas, geothermal (hot water/steam), oil shale, and coal. Nonenergy mineral resources (locatable) include precious and base metals such as gold, silver, copper, lead, zinc, and gemstones such as sapphires. Other mineral commodities which may be locatable include uncommon varieties of bentonite, building stone, limestone and gypsum. Saleable mineral materials include sand, gravel, landscaping rock, and building stone.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

Overall, OHV restrictions would not limit vehicular access for mineral exploration and/or development conducted according to the terms of an approved permit, notice, plan, lease, contract, or other authorization. Mineral interests are entitled to reasonable access and use of the surface under the appropriate mineral development regulations unless specifically limited by the terms of their lease, permit or plan.

Geophysical operators are required to file and receive approval for a Notice of Intent to Conduct Oil and Gas Exploration Operations with the BLM or a Prospecting Permit with the FS prior to commencing operations on public lands. The operator must comply with the terms and conditions of the notice or stipulations in the permit, including any specific travel restrictions.

Surveying and staking of drilling operations may be done without advance approval from the authorized officer (Onshore Oil and Gas Order No. 1). Lessees and operators are strongly encouraged to notify the appropriate surface management agency prior to entry upon the lands for the purposes of surveying and staking. Early notification allows the surface management agency to apprise the lessees

and operators of any existing conditions, including vehicle access restrictions.

On BLM lands, no notification or approval by the authorized officer is required for casual use operations for locatable minerals. However, any person operating a motorized wheeled vehicle on those areas designated as limited or restricted must conform to all terms and conditions of the applicable designation orders. Use of motorized wheeled vehicles cross-country for casual use operations in areas limited or restricted would require permission by the authorized officer.

On national forests and grasslands, no notification or approval by the authorized officer is required for locatable mineral operations which will be limited to the use of vehicles on existing public roads or roads used and maintained for national forest/grassland purposes and that are open to the public. However, any operator proposing to use a motorized wheeled vehicle in national forest and grassland areas designated as limited or restricted must file a notice of intent or plan of operations and receive approval from the authorized officer prior to proceeding.

Completed notices and/or approved plans of operation are required before ground disturbing activities for locatable minerals can occur. Prospecting permits, leases, or contracts must be submitted and approved before ground disturbing exploration for or development of hardrock leasable minerals or saleable minerals. Applications for Permit to Drill and, possibly, special use permits must be submitted and approved before oil and gas drilling operations can commence.

Notices, plans of operation, permits, etc. properly filed and approved, would constitute authorization for motorized wheeled cross-country travel as specified in the notice, permit or approved plan. The operator must comply with the terms and conditions of the authorization, including any specific travel restrictions.

No Action Alternative

Under the No Action Alternative, there would be no impact to mineral exploration or development.

Alternative 1

In those areas available for mineral exploration and development, use of motorized wheeled vehicles by operators, contractors, surveyors and others for cross-country travel for such purposes as prospecting, exploration, locating lines, locating potential access routes, and staking drilling locations would require prior approval from the authorized officer. Currently, OHV's are used in many areas for surveying and staking of mining claims and proposed drilling operations without advance approval from the authorized officer. This alternative would increase the amount of administrative approval required before some routine activities could occur.

The increased administrative review could increase the time required before operators can initiate activities on the ground. These timing delays, and the associated administrative burden of obtaining approval or permits, could negatively impact mineral project schedules and economics. As the mineral operators adjust their future project plans and scheduling to account for these requirements, the impact would be minimal.

Alternative 2

There would be no impact to existing holders of mineral leases or permits. Operations could occur according to the terms of the lease or permit.

Currently in areas open to motorized wheeled cross-county travel, pre-permit surveying and staking of mining claims may be done without advance approval from the authorized officer. Under this alternative, operators without a lease or permit would have to notify the appropriate surface management agency prior to entry upon the lands for purposes of surveying and staking if they wished to use vehicles cross-country. This would increase the amount of administrative approval required as discussed under Alternative 1.

Alternative 3

The impact would be similar to Alternative 2, except there would be no impact to mineral resources in the portion of the analysis area that would remain open to motorized wheeled cross-country travel (Flathead, Kootenai, and Bitterroot National Forests).

Alternative 4

The impact would be similar to Alternative 2, except motorized wheeled cross-country travel would be allowed from December 2 to February 15 and from June 15 to August 31.

Alternative 5

The impact would be the same as Alternative 2.

Cumulative Effects

The No Action Alternative would have no cumulative effects to mineral resources. Alternative 1 would increase

the time required before operators can initiate activities on the ground but in the long term this impact would be minimal. Alternatives 2, 3, 4, and 5 would increase the time required before casual use operations could be initiated on the ground.

UNAVOIDABLE ADVERSE IMPACTS

This section summarizes the unavoidable adverse impacts. Only those resources with adverse impacts are discussed.

Visuals and Recreation

The No Action Alternative has the most detrimental effects to recreation experiences by contributing to conflicts between users. Since Alternative 4 leaves the summer season open to motorized wheeled cross-country travel, it has the next most detrimental effects to recreation experiences. Motorized users under Alternatives 1, 2, and 5 may feel they are losing some opportunities for their recreation activity.

Vegetation and Weeds

Under the No Action Alternative, motorized wheeled cross-country travel has the potential to eliminate or seriously affect populations of the western prairie fringed orchid on the Sheyenne National Grassland in eastern North Dakota. Under Alternative 4, motorized wheeled cross-country travel would be allowed during the summer months, which coincides with the flowering period for this species. The No Action Alternative and Alternative 4 May Affect, and are likely to adversely affect the western prairie fringed orchid.

SHORT-TERM USE/LONG-TERM PRODUCTIVITY

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the alternatives. Only those resources affected are discussed.

Visuals and Recreation

Under the No Action Alternative, the continuation of user-created roads and trails could lead to more roads and trails that may need to be reclaimed when site-specific planning is completed. Since there would be the potential for more roads and trails, it would take longer to reclaim the roads and trails not needed for a permanent public land transportation system. Creation of more user-created roads and trails is possible under Alternative 4, but most likely there would be fewer new roads and trails than under the No Action Alternative.

Vegetation and Weeds

The invasion of native plant communities by weeds can lead to short-term losses in use of habitat by wildlife, recreationists, and livestock permittees, reductions in biodiversity, loss of threatened or endangered and sensitive plant habitat, and loss of topsoil through increased rates of erosion, which often leads to increased sedimentation in streams and lakes. These effects on short-term use can turn into long-term productivity losses.

IRREVERSIBLE OR IRRETRIEVABLE RESOURCE COMMITMENTS

This section identifies the extent to which the alternatives would irreversibly limit potential uses of the land and resources or irretrievably use, consume, destroy or degrade those resources. Only those resources with irreversible or irretrievable resource commitments are discussed.

Vegetation and Weeds

The invasion of native plant communities by weeds is an irretrievable commitment of resources once they are beyond the initial eradication stage. The invasion of native plant communities by weeds can lead to losses in use of habitat by wildlife, recreationists, and livestock permittees, reductions in biodiversity, loss of threatened or endangered and sensitive plant habitat, and loss of topsoil through increased rates of erosion. After the initial eradication stage the effort is to try and minimize their impacts on all resources and minimize their spread to uninfested areas. It means an ongoing effort into the foreseeable future, of expenditures in cooperative Integrated Pest Management efforts.

CHAPTER 4: PUBLIC PARTICIPATION, COMMENTS AND RESPONSES, LIST OF PREPARERS, AND DISTRIBUTION LIST

SUMMARY OF PUBLIC INVOLVEMENT

This section provides information on the public involvement activities that occurred during the preparation of this final environmental impact statement and proposed plan amendment (FEIS), as well as public comments received on the draft EIS and plan amendment (DEIS) and the agencies' response to those comments. The following table presents the chronology of public involvement leading up to the FEIS.

Date	***Public Involvement***
December 1998	An initial news release was issued to inform the public of the project.
January 22, 1999	The Notice of Intent was published in the Federal Register.
February 1999	Nearly 14,000 informational letters were sent to a combined Forest Service (FS) and Bureau of Land Management (BLM) mailing list.
February 1999	News releases on the project were sent to newspapers throughout the analysis area.
February/March 1999	35 open houses and briefings were held throughout the analysis area.
March 1999	A news release on the extension of the public scoping period to May 31, 1999 was sent to newspapers throughout the analysis area.
May 1999	A news release was issued to remind the public about the extension of the comment period and that comments are most useful if received by May 31, 1999.
May 31, 1999	The end of public scoping comment period.
August 1999	Nearly 4,500 informational newsletters were sent to a mailing list of all interested parties, agencies, organizations, and individuals.
August 1999	A news release on the summary of public scoping comments was sent to newspapers throughout the analysis area.
October 1999	A news release was issued to explain a delay in the release of the DEIS.
November 1999	The Off-Highway Vehicle DEIS was released for public review and comment.
November 15, 1999	The Notice of Availability of the DEIS was published in the Federal Register.
November 1999	A news release was issued announcing the availability of the DEIS and the dates, times and locations of 35 open houses.
November/February 2000	The comment period on the DEIS.
November/January 2000	Local BLM and FS offices issued new releases locally prior to the open houses in their area.
November/January 2000	35 open houses were held throughout the analysis area.
February 2000	In early February, the agencies issued a news release to remind people the comment period on the DEIS would end on February 24, 2000.
February 24, 2000	End of the public comment period.
March 31, 2000	A news release was issued about the end of the comment period and release of the FEIS scheduled for December 2000.
July 2000	A newsletter summarizing the comments received during the comment period on the DEIS was sent to approximately 7,100 interested parties, agencies, organizations and individuals.

SCOPING AND PUBLIC COMMENTS PRIOR TO THE DEIS

A Notice of Intent, formally announcing the beginning of the planning process, was published in the Federal Register on January 22, 1999. Nearly 14,000 scoping letters were mailed to the public based on a combined FS and BLM mailing list. The comment period, which was originally scheduled to end on March 31, 1999, was extended to May 31, 1999 in response to a request from Congressman Rick Hill and the agencies' commitment to an adequate public scoping period. During that time, the agencies conducted 35 open houses, which were attended by approximately 1,400 people.

During the scoping period, the agencies received nearly 3,400 letters. These public comments, along with issues identified by the agencies, were used to determine the scope of the analysis to be undertaken for the EIS and to develop alternatives to the proposal.

SUMMARY OF PUBLIC COMMENTS ON THE DEIS

The DEIS was released for public review and comment in November 1999. The 90-day comment period on the DEIS ended February 24, 2000. Over 1,500 people attended 35 open houses that were held around Montana, North Dakota and South Dakota. During this time period, 2,309 letters were received. These included comments from the open houses, individual letters, form letters, organizational letters, postcards, petitions, phone conversations, and e-mails sent to the BLM Internet web page.

Demographics: Comments on the DEIS were national in scope coming from 31 states and the District of Columbia. The majority of the comments were from Montana with the next highest from South Dakota.

Of the 2,309 letters received, comments came from: individuals (2,114), organizations (101), businesses (68), federal agencies (5), state government (5), county government (9), city government (1), tribal government (1), schools (3), a branch of the military (1), and a congressman (1).

Content Analysis Process (how comments are handled): As a joint BLM and FS project, all comments were read by both BLM and FS employees. Substantive and nonsubstantive comments were identified and assigned a code. Another group of employees did a second read on the comments to verify first reader coding. Substantive comments are those that address the adequacy of the EIS, or the merits of the alternatives, or both. Comments that simply express support or opposition to one or more of the alternatives, or state an opinion, are considered nonsubstantive and are not responded to in the FEIS.

Some information in the DEIS was corrected or clarified based on public comments that contained many useful recommendations for improving and updating the DEIS. In addition, information and recommendations provided by the Interdisciplinary (ID) Team were considered and incorporated into the FEIS. Responses to substantive public comments have been developed by the ID Team and are found later in this Chapter.

Some commenters wrote their letters as a vote for one alternative or another. The agencies' request for public comment was not designed to be a voting process, but a way to review the adequacy of analysis methods and determine: if there are factual errors; whether new alternatives, effects or mitigation measures should be considered; whether there are substantive disagreements over the determination of significant effects. Although only substantive comments are responded to in the FEIS, other comments are important to the decision-makers because they provide information on the opinions and preferences of those who have taken the time to comment. Following is a summary of the public comments on the DEIS by subject area.

Summary: In general, the issues identified in the content analysis process for the DEIS were similar to those identified during the scoping process. Most people felt that the issue of OHV use on public lands needed to be addressed. However, from that point on, there was little agreement on how OHV's should be managed.

Although the public comment process is not a voting exercise, certain opinions were common in the letters and e-mails. Comments such as does not solve OHV problem; legalizes user-made roads and trails; covers too large an area; not a full range of alternatives; alternative like the Montana State Lands Policy; closed unless posted open; none of the alternatives are acceptable; no action needed; travel on designated routes only; and various wording of the same ideas were recurrent in the 2,309 letters.

Planning: Comments received on the planning and National Environmental Policy Act (NEPA) process of the DEIS primarily focused on these subjects: range of alternatives; management compliance with Executive Orders (EO's)11644 (1972) and 11989 (1977) and the associated Code of Federal Regulations (CFR); size of the area addressed in the DEIS; recognition and or sanctioning of user-created roads and trails; reduction or closure of access to public lands; plan accommodation and promotion of OHV use; necessity of the DEIS; time length for site-specific

planning; possible increase of user-created trails; local input and control of the site-specific process; lack of an alternative that mirrors the Montana State Lands Policy or the Lolo National Forest Plan; pre-determined decision; lack of data presented in the DEIS to support the alternatives; OHV use in roadless areas; and concern about effects on individual resource components such as wildlife, vegetation, soils, etc.

Some organizations and individuals who submitted comments generally supported the need for a plan, but not necessarily the alternatives presented in the plan. Some commenters felt the evidence presented in the DEIS did not support selection of the preferred alternative.

Alternatives: Comments about the alternatives ranged from the need for a more restrictive alternative to including fewer restrictions or that existing regulations were adequate. Some people wanted a more restrictive alternative, such as the Montana State Lands Policy or a Designated Routes alternative. These commenters were concerned that the existing alternatives did not go far enough and would legalize all user-created roads and trails. In addition, many of these commenters did not think any of the alternatives would reduce impacts associated with OHV use.

Other commenters stated that the existing regulations were adequate or were already too restrictive. They felt that identified problems would be better handled on a case-by-case basis rather than a broad closure. Others also commented that the agencies have already imposed too many closures and they were opposed to any more. In general, these latter comments supported the No Action alternative. A number of form letters represented these differing viewpoints.

Some thought the preferred alternative was reasonable or preferred one of the other alternatives. Some commenters mixed and matched portions of the alternatives to develop new alternatives. In general, these commenters changed around the exceptions, such as camping or game retrieval. Some people commented that they preferred one of the alternatives not considered in detail, such as "closed unless posted open" or to include snowmobiles.

Implementation: The primary concerns expressed on implementation of the DEIS centered around enforcement, education, site-specific planning and, to a small degree, the subject of signing. The subject of enforcement was a common implementation issue. Some people felt that there were enough regulations in place and the agencies simply needed to enforce the regulations. Others felt the alternatives were unenforceable because the definitions were too vague.

Another common concern was education. Commenters on this issue felt that for any plan to be successful, education about preventing resource damage or about the potential impacts of OHV use was a necessary component.

On the subject of site-specific planning, commenters were generally in favor of local control by the respective agencies with input from the local public, the feeling being that local agency personnel and the publics knew the resources best. Some commenters expressed concern about the time frame for site-specific planning.

Roads and Trails: Although a number of general comments were expressed, most of the comments on roads and trails were in two categories: the definition of cross-country travel in the DEIS and the topic of user-created roads and trails. Some people commented that the definition was too vague and would be very difficult to enforce. Others were pleased that under the definition, the historic and user-created trails would not be closed.

Closely related to the definition was the topic of user-created roads and trails. Commenters on this topic were generally opposed to continued use on user-created roads and trails. They believe that these roads and trails were created illegally and that by not closing them, the agencies were sanctioning their use and making them legal.

Social: People who expressed themselves on the social aspects of the DEIS were sharply divided on management of OHV's on public lands, and while some of the concerns they expressed had common themes, such as the emphasis on the land being "public" and the issue of user conflicts, most issues were unique to individual groups.

Primary sentiments expressed by some people were resentment over perceived loss of personal freedom; shrinking opportunity to ride their vehicles; the perception that outside environmental interests were controlling the EIS process; changes from "the way things used to be;" a feeling that the agencies no longer managed for multiple use; and the perception that their activities were being targeted by agencies and environmental groups.

In contrast, opposing commenters stated that they highly valued natural resources for a variety of reasons and expressed concerns about damage to vegetation and wildlife and the desire to have areas where they were not impacted by the visual or noise effects of OHV's. There was also the perception that the OHV industry had a strong influence on the content of the DEIS and that justification for the exceptions presented in the alternatives was weak and the argument by OHV users that they were being locked out was not justified.

Recreation: Comments on recreation dealt with the topics of hunting/game retrieval, camping, user conflicts, disabled/aging, and access.

For hunting, commenters felt that motorized vehicle use compromised quality hunting experiences. They felt that using OHV's led to unethical hunting practices and scared game away. On the other hand, some people felt that the use of OHV's allowed them access to remote areas that would be inaccessible without outfitter guides or motorized vehicles. Comments on game retrieval were divided between those who supported an exception for game retrieval and those who did not.

There was a range of comments on exceptions allowed for camping. Some commented that 300 feet was too wide, excessive, and could lead to abuse and enforcement problems. Others commented that exceptions for camping were unnecessary because there were numerous developed campgrounds people could access by road. There were some who thought the exceptions for camping were reasonable and even a few who felt that 300 feet was not far enough.

On the topic of persons with disabilities and the aging, comments focused on the need to provide access for the disabled and aging, and that the project, in general, was limiting access and was unfair to the disabled and aging. On the other hand, some commenters felt that compromising resource values to provide access to everyone everywhere was not acceptable and that BLM and National Forest System (NFS) lands have many miles of roads and trails available for motorized use.

In relation to the topic of user conflicts, some felt that since the majority of recreationists preferred quiet types of recreation, OHV use should be severely limited to reduce user conflicts. Others commented that nonmotorized users had ample areas to recreate where motorized use was not allowed (i.e. wilderness areas). They also commented that motorized users were always the ones having their activity limited. Some commented that the DEIS was biased in favor of nonmotorized users because many areas were already closed to motorized use and to compensate for this inadequacy the BLM and FS should set aside areas for motorized users.

On comments related to access, some dealt with general rights to access public lands. Others related to isolated tracts of public lands with no legal access to them. Some commented that access should be fair to all and that ranchers/permittees should not have special rights.

Wilderness Study/Roadless Areas: Comments on Wilderness Study/Roadless areas were fairly numerous but covered a narrow range of concerns. The main comments were the DEIS offers no protection for roadless areas; allows no motorized use in roadless areas; we don't need any more wilderness. There were also a few comments like allow no motorized use in wilderness and we need to preserve what roadless areas are left.

Economics: There were comments that the Economics section did not consider the economic contributions of nonmotorized recreation, the economic benefit of "wild" areas, and the costs associated with motorized recreation. On the other hand, some commenters felt that the agencies were further crippling local economies by restricting OHV use. Some people felt that conducting an economic analysis of the OHV industry was inappropriate because they felt that the agencies should analyze effects to natural resources and not to a single industry. Others commented that OHV users paid for their activity and that their activity generated money while hikers did not pay for their activity and did not generate much money for the local economy.

Wildlife: Concerns expressed by commenters on the subject of wildlife centered around degradation and fragmentation of wildlife habitat and potential impacts the alternatives presented in the DEIS would have on wildlife.

Some people felt that there was no evidence presented in the DEIS that justified restricting their activities. Commenters cited personal experiences where their activity had not disturbed animals. Others felt that OHV's disrupted wildlife activities, fragmented and degraded habitat, and reduced security. Commenters called for management actions ranging from supporting the preferred alternative to restricting OHV's to designated roads only.

Soils: The comments on soils were all related to erosion. Some people felt that OHV's tear up the land and cause serious erosion problems, while others commented that horses and cattle create more erosion problems than OHV's.

Vegetation: Most of the comments on vegetation related to noxious weeds. There were basically two sides on this issue. Some people commented that there was ample evidence that vehicles were the worst avenues for spreading noxious weeds. They thought that the agencies should aggressively restrict OHV use to slow the spread of weeds. On the other side of this topic, many people commented that motorized users were being blamed for a problem that was actually caused by numerous other factors.

Aquatics: There were comments on riparian areas, wet meadows, and fisheries. In general, commenters felt that streams and meadows were fragile ecosystems and should be protected by prohibiting motorized travel. Some people commented that horses and cows created a lot of erosion and subsequent sediment and that this entire topic was just an excuse to restrict motorized travel.

Cultural: The comments on cultural resources ranged from providing greater detail on tribal history to the importance of historic wagon trails to impacts to cultural resources and culturally important plant communities. Some people commented that they did not think cultural resources were being impacted by OHV use while others favored protection of cultural resources.

Commercial Activities: Comments on commercial activities were mostly limited to grazing leases and utility gas and oil leases.

RESPONSES TO PUBLIC COMMENTS

Two lists are provided on the following pages. The first alphabetically lists the agencies, organizations, businesses, and persons who submitted comments on the DEIS and the assigned comment code. The second is an index of comment codes assigned to 16 subject categories.

LIST OF COMMENTERS/CODES

Name	*Comment Code*
Abel, Stuart	B21
Adams, John	A26, A27, B21, B22, C14, C30, E1, H8, P5
Ahrens, Craig	B19
Aitken, Gary	C9
Albertson, Joyce	B21
Albertus, Michael	A9, A31, B23, C24, J6
Albus, Eric	B11, C14, C22
Alder, John	A26, B20, B21
Alexander, Rick	B11
Alliance for the Wild Rockies	A5, A10, A11, A12, A26, A27, A35, B19, B20, B21, B22, B23, C14, C16, C17, J3, K1, P12
Almgren, Ted	A9, A13, A34, B11, C19
Almquist, Marty	A5, A26, B7, B21
American Lands Access Assn.	A37, B23, P10
American Wildlands	A26, K10
Amundson, Dan	A27
Anderberg, Jerry	B11
Anderson, Carl	B11
Anderson, David	D1
Anderson, Ken	A9, A31, B23, C24, J6
Anderson, Maury and Hanson, Pat	B19, F2
Anderson, Sarah	A26, P12
Angermeyr, Anne	B21
Anthony-Aven, Diana	A26, B19
Antonich, Matt and Moen, Phil	P3
Arbetan, Paul	A27, B19
Arguimbau, Ellie	B19
Armstrong, Jeffery	A9, A31, B23, C24, J6
Arnold, Thor	B19
Artley, Richard	P14
Ashmore, J.	A26, B21
Ashwood, Lester	B20, C10, L1, P10
Austin, Alice	A26, D1

Name	*Comment Code*
Back Country Horsemen of Missoula	B37, D5, D13, P12
Back Country Horsemen, Bitter Root Chapter	B21
Baehr, Matt	P14
Bain, Larry	A9
Balasky, Cathy	A26
Baldwin, Gary	A9, A31, B23, C24, J6
Bameister, Jan	D1
Banks, Anne	A27, B21
Barcus, Martin	B22
Barker, Georgia	B21, P9
Barnard, Larry	P14
Barrett, Heidi	A26, B19
Barry, Steve	B19
Bartlett, John and Joanne	A9, A31, B23, C24, J6
Beach, Anita	P10
Beard-Tittone, Kelly	D1
Beardsley, Leita	A34
Beardsley, Wendell	A26, B21
Becerra, Tracy	A26, A57, B25, D5, E1, P12
Bedey, Robert	A9
Behan, Mark	A57, B19, D13
Beischel, Linda	A26, B19
Bennett, David	P10, P14
Benowitz, Scott	A26
Berg, Paul	B19
Bermingham, John	B21
Bertino, Philip	A9, A31, B23, C24, J6
Bertsche, Jon and Anne	P10
Bey, Ronald	A9, A31, B23, C24, J6
Biehl, Daniel	A26, B20
Bielenberg, Donald	A9, A31, B23, C24, J6
Big Sky Trail Riders	B23, G2
Big Sky Country Trail Preservers	A11, A49, A50, A61, B15, C3, C21, C26, H1, H10, H11, J2, K2, K3, K14, L4, M4, N2
Big Sky Upland Bird Assn.	A26, B19, D1

Name	*Comment Code*
Billings Rod & Gun Club	A9, B11, B23, C2, D7, P12
Billingsley, Mary	F4, F6, H6, P4
Bilodeau, Aaron	B21
Birck, Bill and Kim	B23
Bischke, Scott	A28, B19, B21, C30, E1
Bishop, Norman	A26, B40
Bitterroot/Grizzly Motorcycle Alliance	A3, A26, A34, A38, A46, A56, B11, B31, B42, C8, C9, C20, D1, D5, D10, D15, H1, H2, H7, I1, J2, J5, J9, J10, K2, K4, L3, L4, N3, P9, P10
Black Butte Ranch	B21
Black Hills Regional Multiple Use Coalition	A1, A34, G6, I1, N1
Blackfoot Valley Dispatch	H1
Blackler, Edd	B19, P14
Blair, Susan	A26
Bleecker, W.G. and Pat	B22
Blevins, Auzie	C7, P7
Blevins, Sally	A26, B19, B21, C9, D5, E1, P12
Blomquist, Dan	A9
Blomquist, Terrie	J2
Blue Ribbon Coalition	A3, A9, A13, C23
Blue Ribbon Flies	P9
Bluemel, Heidi	B19, B20, P12
Boka, Mike	P9
Boland, Will	A28
Bonnett, Charles	P14
Booker, Karen	A26
Borchgrevink Livestock	F4, F6, H6, P4
Borowski, James	A26
Botkin, Steve	A9, A31, B23, C24, J6
Boule, Richard and Sandy	A9, A31, B23, C24, J6
Bourdage, Daniel	A3, A9
Boyd, Diane	B19, B21, K2
Bradbury, L.S.	B19
Brady, Robb, Robert & Pat	B11, B20, C14
Brandborg, Stewart	B19
Brandt, Kathy	A9, A31, B23, C24, J6
Brass, Helen and John	B21
Braun, Tom	B11, B20, C9, P14
Brence, Paul	F4, F6, H6, P4
Brennan, Chris and	B11
Brist, Stephanie	A9, A31, B23, C24, J6
Broberg, Len	A26
Brooks, Adam	J1
Brooks, Richard	I1, P14
Brown, Edward	A17, D1, P14
Bruce, Henry	A9, A31, B23, C24, J6
Bucklin Sanchez, Karen	A27, B23
Buehler, Charles	B11
Bullis, Roddy	A28
Burke, Polly	B21, P14
Burns, Donald	A9, A31, B23, C24, J6
Burton, Tim	P14
Buttgen, Brooke	A26, B21, B24
Byrum, Robert	A26, K1, P9
C & B Grazing District	B33, F6
Caldwell, Steve	B21
Callan, Arthur	B21
Cameron-Russell, Sally	B21
Campbell, Cate	A26, B21, E1, P12
Cannon, Diane	A26
Cardin, William	A26
Carlson, Edith	D12, P12
Carlstrom, Mark	P9
Carpenter, Ami	B19
Carroll, James	F4, F6, H6, P4
Carroll, Pat	B22, D1, P4, P14
Carroll, Philip	A9, A31, B23, C24, J6
Carroll, Tom	B19
Carson, Curtis	A9
Carter Co. Sheep & Cattle Growers Assn.	F4, F6, H6, P4
Cartwright, Joseph	A9, A31, B23, C24, J6
Caruso-Hirst, Donna	P12, P14
Cecil, George	A26, B19
Center, Dean	P14
Cesnik, Robert	A31, B23, C24, J6

Name	*Comment Code*
Chain of Lakes Homeowners' Assn.	A1
Chamberlin, Wayne	P7
Chandler, Nyla	E1
Chansler, John	F2
Chebul, John	B19, J1
Christensen, Dave & Connie	A24, C8
Christensen, Lois & Robert	G2, P8, P9
Christianson, Carmen	B21
Clark, Bob	B19, E1
Clark, Carl	A26
Clark, Eileen	A2, A70
Clark Fork Ranch	C9, P14
Clark, Herbert	A2, J2
Clearman, Richard	J6
Cleveland, Gary	B19
Cochrane, Stephanie	B21
Cockshott, Shiela	B20
Colavito, Dave	B21, B22
Cole, Bob	B11
Cole, Constance	A26, B21
Cole, David	A26, B21
Cole, Rod	F2, F5, H6, H12
Coles, Kirk	A9, A31, B23, C24, J6
Collie, Alex, Lois and Alex Jr.	F4, F6, H6, P4
Colorado Wild Inc.	B21, B22
Colucci, Vince	P14
Colvin, John	J2
Concerned Friends of the Winema	C5
Confederated Salish and Kootenai Tribes	B20, I2, I3, J4, P2
Congressman Rick Hill	A13, A14
Continental Divide Trail Society	A33
Cook, Eugene & Whitney, Rene	A9
Cooper, Pam	A9, A31, B23, C24, J6
Cooperstein, Jim and Janice	A26, B19

Name	*Comment Code*
Cook, Kenneth and Peggy	B19
Copenhaver, Terry	P14
Corrigan, Charles	A26, P12
Corrigan, Elaine	B19
Cotton, Gary Sandee Joshua & Jeremy	A3, C9, P14
Cotton, Jeremy	G2
Counsell, Merlyn	A9, A31, B23, C24, J6
Courter, Carrie	P14
Cox, Ellen and John	A61, B19
Cox, Kevin	E1
Cramer, Marta	A26
Cross, James	B19, F1
Crymble, Kenneth	A17
Cullen, Eric	A9, P14
Culver, Charles	P14
Culver, Franklin	A26, B19, B20, B21, C6, F8
Culver, Pat	P14
Culver, Patsy	A26
Cunningham, Bill	A26, C14
Curran, Edmund	A62, D1, D5
Curtis, James	B24, H7, H8, H9
Cushman, Susan	A26
Daggett, John	A26, D1
Dakotas Resource Advisory Council	B11
Dale, Paul	A9
Danesh, Eleanor	C14, H8, P9, P12
Davidson, Karen	B19
Davis, Maxon	A26
Dean, LeRoy	F4, F6, H6, J2, K5, P4
DeGunia, DeLois	A9
DeGunia, John	B23
Demarest, Roberta	J6, P9
Denison, James	B11
DeShazer, Robert	A20
Deveny, Tom	B22
Devitt, Kim	D1, K10
Dickerson, Patricia	D1

Name	*Comment Code*
Dillon, City of (George Warner,Mayor)	A9
Divoky, Terry and Dennis	D5, J1, P14
Dixon, Mark & Scheverman, Katrina	P14
Dockter, Chely	B19
Dockter, Merle	B19
Doffing, Gerald	A9
Dolan, Larry & Ritten, Karla	A61, D6
Dolechek, Keever	H1, P10
Donahey, David	F2
Double-D Ranch	F2, F5, H6, H12
Downey, Mary Jo	A9, A31, B23, C24, J6
Downey, Ron	A9, A31, B23, C24, J6
Drabenstott, Leean	B19, P14
Dresch, Leighton	B21
Drury, William	A55, P14
Dunbar, Cal and Jan	B21
Dutton, Kelly	A9, A31, B23, C24, J6
Earl, Russ	P14
Earth Justice Legal Defense Fund	A21, B21, B24, B29
East Pioneer Experimental Stewardship Program	A36, B11, B21, D8, D9, E3, F2, J5, P9, P14
Ecology Center, Inc.	A26, B24, P14, P3
Edwards, George	A2, C9
Edwards, Paul	A26, B21
Edwards, Rhonda	C9
Egger, Kevin	A9, A31, B23, C24, J6
Egger, Shirley	A9, A31, B23, C24, J6
Ehinger, William	P14
Ehresmann, Les	M1
Elliott, Joe	B22, B25, D5, J7
Ellis, Steve	B19, C20
Ellison, Linda	B3, B8, B11, C9, C20, C27, D6, H7, J2, L3, P6, P10, P12
Elser, Smoke	B19
Emerson, Jason	A9, A31, B23, C24, J6
Enderes, Kent	A26

Name	*Comment Code*
Emerson, James	P14
Engelhardt, Doug	P9
Engelstad, Louise and Mark	B11
Engler, Mark	B21
Erdie, Thomas and Irene	B41, P8
Esbjornson, Carl	A26
Essen, Marty	A26
Evanoff, Seth	A1, P8
Everett, George	A9, A31, B23, C24, J6
Ewald, Forest	B23, P9
F.H. Stoltze Land & Lumber Co.	A13, C2, H1, H8, J2, J6, P9, P10
Fanelli, Dino	B21, P14
Fauth, Gideon	A9, A31, B23, C24, J6
Fay, Tim	D5
Feather, Karen and DeSanto, Jerry	D1
Fedro, Kris	A26
Fee, Helen	A17
Feickert, Tracey	B19
Feistiver, Lester	P14
Felbeck, David	A1, B11, D4, P8
Fence Creek Ranch	C14, C17
Fenster, Larry	A9, A31, B23, C24, J6
Fenster, Les	A9, A31, B23, C24, J6
Ferrell, Doug and Mindy	B21
Feyhl, Ken	A9
Fields, Edwin	B21
Fingerson, DuWayne	P9
Fischer, Doris and Gotshalk, Richard	B20
Fisher, Carol	A9, B23, C24, J6
Fisher, Jim	B19
Fitzmaurice, Mary Peg	B21
Five Valleys Audubon Society	B34, D13, P3, P14
Fleming, John	A9, A31, B23, C24, J6
Fogland Ranch Co.	F2, F5, H6, H12
Fontana, John	A25, B19

Name	*Comment Code*
Floyd, Bruce and Samantha	F2
Forbes, Betsey	B21
Ford, Michael	A26
Forehand, Dick	A26, B21
Forty Bar Ranch	F2, F5, H6, H12
Foster, Brian	A40
Fowler, Ray	B21, P14
Frazier, Georgia	B21
Fredericksen, Richard	I1, K1
Fredlund, Dale	A26
Friends of the Bitterroot	A25, A26, A27, B19, P3, P9
Fries, Jerry	B21
Fry, Dan	P8
Fuglestad, Paul	A32, H3, P14
Garde, Anne	B19, B21, D11
Gehman, Steven	B19
Gehrkens, Greg	A9, A31, B23, C24, J6
Geiger, Connie	B21
Gerrard, Doyle	A26
Gibson, Katie	B4, B21
Gillespie, Harla	A26, P14
Gniadek, Steve	B21
Grady, Mike	P14
Graesser, Alfred	B21, P12
Granite County Commissioners	B11, P3
Gray, Randall	B21
Great Falls Trail Bike Riders Assn.	B21
Greater Yellowstone Coalition	A19, B20, B21, C25, K1, K7, K9, P12
Green, D. Arthur	A45, B23
Green, Merle	A26
Green, Rial	A9, A31, B23, C24, J6
Greenlee, Larry	F4, F6, H6, P4
Greiner, Wm.	B21
Griffin, Paul	B19
Grove, Eric	B21, C14
Grove, Chris and Sara	A26, B36

Name	*Comment Code*
Gunderson, Kari and Flood, Joseph	A26, B19
Gupton, Elizabeth	A26
Gutkoski, Joe	A26, B21
Guynn, Peter	A26
Haas, Fred	A9, A31, B23, C24, J6
Hagenbarth Livestock	F2, F5, H6, H12, P14
Hahr, Meg	A26, B21
Hain, Ron	A9, A31, B23, C24, J6
Haivala, Harry	P9
Hale, Alisa	B11
Halko, Martin	B11, C14
Hallmark Ventures	B21
Hamilton, Martin	B19
Hammel, Fred	A31, A68, A70, B23, C24, J6
Hammock, Dayle	A35, P10
Hanna, David	D1
Hansen, James	P10
Harding, Thomas	B19
Harper, Archie	A26, A62, B2, B19, C13, P10
Harper, John	A26
Harris, Arlene	B21
Hart, Mortimer	B11
Hartman, Rick	B21
Hartsig, Andrew	A26, P14
Harvey, Sharon	D1
Havlick, David	A26, B22, G10, M5
Hayden, Larry	A27, B11, C14, D1
Hazelbaker, Nick	A27
Hazlewood, Rob	C14
Hedlund, Richard	B19
Hedrick, Patricia	B21
Heffern, Jacquie	B21
Heffern, Roy	A26, B11
Heidel, Bonnie	A26, B19
Helgath, Randy and Diane	A9
Helms, Candi	A27, I5
Hendricks, Steve	B19
Henning, Grant	H1, J6

Name	*Comment Code*
Herring, Hal	B19
Hendricks, Jennifer	B19
Hewel, Keith	A26
Hewitt, Kirk	P14
Hiaring, Robert	P14
Hildreth, Ed	B12
Hill, Beth	A28
Hilsendeger, Bill	A31, A32
Hinkle, Jack	A9, A31, B23, C24, F2, J6
Hoard, Mark	P9
Hobbs, Ron	A9, A31, B23, C24, J6
Hodgeboom, Fred	A1, A20, A26, A31, A42, A64, J2, J8
Hoefert, Ken	A8, H12
Hofer, Marvin	A18, A25, A26, A29, A39, A48, B20, E1
Holifield, Jenny and Wegner, Steve	B19, C9, J3
Holly, Douglas	B19
Holman, Jeff	A9, P7
Holmes, Tim and Crase, Claudia	B19
Holoubek, Jet	B11, P9
Holst, Bobbie	B21
Holt, Ira	A26, C14
Holton, George	A26, B19, B21
Hopkins, Paul	A26
Horejsi, Charles	D1
Horgan, Christopher	A1, A9, C3, C23, L4, M3
Horton, Jane	B19
Houska, Greg	A9, C9, C28
Houston, Robin	B19
Hovin, Arne and Carol	A26
Howe, Duane	A26
Hoy, Robert	B22
Hudson, Ann	B19
Hudson, Hank	B19
Hudson, Russell	F2, F5, H6, H12
Huggett, LyRinda	B23
Huggett, MiChealla	A9
Hughes & Sons Cattle Co.	F2, F5, H6, H12

Name	*Comment Code*
Hunt, Ernest	A9, A31, B23, C24, J6
Hunt, Jenny	B21
Hunter, Phoebe	B19
Hunts, Stephen	B19
Huntsinger, Thomas	A9, A31, B23, C24, J6
Ibsen, Dirk	B32
Illi, Warren	B23
Immonen, Wilma	P9, P14
Iverson, Jerry	B21
Iverson, Linda	J3
Ivins, Natasha	P10
Jackson, Don	B19
Jackson, Elizabeth	B19
Jackson, Forrest	B19
Jackson Ranches	F2, F5, H6, H12
Jackson, Sue	B19
Jacobs, Connie	E1, P14
Janecke, Bill	A27, B21, L2, P14
Janke, Sherman	B19, D13, E1, P12
Jappe, Marge	A2, A67, A9, H1
Jasmer, Lynnette	A9, A31, B23, C24, J6
Jawbone Cattle Co. Inc.	F2, F5, H6, H12
Jeresek, Jon	B21
Joern, John	A9, B20, C8, C28, D2
Johns, Lelland	B1, B2
Johnson, Dick	B19
Johnson, Eugene	A26, B21, P12
Johnson, Gene	F2
Johnson, Mercedes	A26
Johnson, Scott	B21
Johnson, Shelley	A9, A31, B23, C24, J6
Johnston, Dave	A1
Jones, Cedron	B5, B19, B22, C3, C10, C31, D13, H6, H8, I4, P12
Jones, Dave	A26, B21
Jones, David	A61, P14
Jones, Harley	A9, A31, B23, C24, J6
Jones, Horace	P14
Jones, Jack	A9
Joslin, Gayle	A27, B19

Name	*Comment Code*
Jones, Howard	A9, P8
Julien, Duane	P14
Jungwitsch, Bruce	A9, A31, B23, C24, J6
Katsaris, Anne	A26, B19, P14
Keaveny, Theresa	B21
Keene, Douglas	A9, A31, B23, C24, J6
Kehr, James	A26
Keith, Jerry	F4, F6, H6, P4
Keith, Jim	F4, F6, H6, P4
Keith, Michelle	F4, F6, H6, P4
Keith Ranch Co.	F4, F6, H6, P4
Keller, Mark	J2
Kemppainen, Thomas	A9, A31, B23, C24, J6
Kendy, Eloise	C12
Kennedy, Kathleen	A26, B21
Kershner, Kenneth	A9, A31, B23, C24, J6
Kerstetter, Ted	E1
Ketterling, Kelly	P14
Kidder, Jo Ann	B21
Kiely, Joe	B21
Kikkert, Cheryl & Doug	B19
Kilmer, Tom	A26, B19
Kindt, Sandy	A26, B21
King, Emmett	A26
King, Michael	B21, P9, P14
Kirby, Bill	A9, A31, B23, C24, J7
Kirby, James	A9, A31, B23, C24, J6
Kleppen, Tim	D1, F2, P10, P14
Knight, James	A1, P9
Knoell, Roger	A63, D1, F8
Knudsen, Kathy	B21
Koehnke, Bill	B21
Korting, Marc	P14
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Leclerc, Dan	A9, A31, B23, C24, J6
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Liss, Stanley Jr.	B11
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Morton, Don	A9, A31, B23, C24, J6
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Peck, Brian	A26, K7
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Robinette, David	A9, A31, B23, C24, J6
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Rodgers, Ross	B19, C18
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Rogers, Everett	A9, A31, B23, C24, J6
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Romano, Victor Sr.	A1
Roods, Bob Jr.	A9, A31, B23, C24, J6
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Ross, Kathy	F8
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Rost, Bruce	A9, A31, B23, C24, J6
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Ruggiero, Jory	B21
Ruone, James	A9, A31, B23, C24, J6
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Stewart, Donald	A9, A31, B23, C24, J6
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Swift, Bernie	A3
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Taylor, Don	B21
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Tomich, Robert	B19, B21
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Wade, Kelly and Spannring, Robert	A26
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Walker, Ira	A9, A31, B23, C24, J6
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Weaver, Andrew	A9, A31, B23, C24, J6
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Webster, Jack	C9
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Weinert, Allen	A26
Weis, Paul	C9, C13, C14, C15
Wells, Al	B19
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West, Winfield	A9, A31, B23, C24, J6
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Whitlock, Katherine	B19
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Willits, Robert	A26
Wilsnack, Ann	A26
Wilson, Paul & S.;Yonce, JB & D.; Burrus, Ch. & J.	B21
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Wisman, Jim	A26, B11, P14
Wisness, Paul	F2
Woerner, Don	B11
Wold, Randy	A26, A29, A41, B19, B21, K8, P3
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Wood, Adam	J2, P10
Wood, Michael	J2
Wood, Ted	A26, B22
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Woods, Charles	A9, A31, B23, C24, J6
Worf, Bill	B21
Workman, Mike	A9
Worthy, Willie	A27, B23, C27, J6, P3, P14
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Young, Janet	A26
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Zacher, William	B19
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Zavadil, Bob	B21

Comments on the DEIS from the following list of letters were considered and are important to the decision-makers because they provide information on the opinions and preferences of the public, but the comments are considered nonsubstantive and are not responded to in the FEIS. Please refer to the Summary of Public Comments on the DEIS at the beginning of Chapter 4.

Aas, Barbara
Abernathie, Gordon
Abraham, Roger
Abraham, Sharon
Adams, Arley and Betty
Adams, Jane and Hyde, Andy
Aker, Alan
Albrecht, Corwin
Albritton, Michael
Albro, Chauncey
Alexander, Denise
Alexine, Mary
Alley, James
Alt, Thomas
Amtmann, John
Anaconda Parks & Recreation
Anderson, Bill
Anderson, Gene
Anderson, Ric
Anderson, Thomas
Andrews, Paul
Andromidas, Jorge
Annis, Bud
Arlee Ambulance Service
Armstrong, Larry
Army Corps of Engineers
Arneson, Don
Arneson, Elinor
Arrington, Maria
Ashley, Dan and Sandi
Ashley, Laurie
Ashmore, Kenneth
Atchley, Peggy
Atkins, Thomas
Aukshun, Rob
Aven, Peter
Baeten, William
Baker, Ann
Baker, Darrell
Baker, David
Baker, Don
Baker, Forrest
Baker, Lorraine
Baker, Lyle
Baker, Mike
Baker, Shawn
Banderof, Steve
Bardsley, Johnathan
Barnes, Joan
Barngrover, Jim
Barnum, Merl
Barrett, Bill
Barrett, Debby
Barrett, Steve
Barth, Donald
Barthel, Don
Bartholomew, Dorothy
Bartlett, Lee
Battaglia, John
Bauer, Brian
Bausett, David
Baxter. Molly
Beatty, Marvin
Beauchaine, Steve
Beck, Barb
Beck, Robert
Becker, Steve
Bell, Steve
Belles, Mark
Belter, Kathleen
Benbrook, Dee, Jerry, Jesse, Wendy, Wes & Monica
Benish, Rick
Bennett, Hugh
Benton, Fay
Berg, C.V.
Berg, Dan
Bergsland, Tom
Bermingham, Marnie
Bertoia, Celia
Bertsch, Brian

Bierlein, Fred
Bigler, Robert
Bilodeau, Alex
Birch, Joan
Birch, Mark
Birck, Bill
Bischke, Scott and Gibson, Katie
Bishop, Erin
Blend, Jeff
Blend, Rebecca
Bloomenrader, Ashley
Bloomquist, James
Blotkamp, Mary and Bob
Boehmke, John
Bohn, Frank
Bolin, Stanley
Bonnicksen, Jon
Boots, Debby
Borden, Robert
Borglum, Troy
Borgmann, Albert
Borst, Brad
Bowler, Tom
Boyd, Terry
Boyer, Steven
Bradeen, Monty & Kathy
Bradley, Carl
Bradley, Doug and Judy
Bradley, Patricia
Brady, Joseph
Brakke, William
Brehe, Dale
Bressler, Alan
Breuninger, Nancy and Ray
Bridges, Robyn
Brindle, Jayne
Brion, James and Jane
Brion, Linda
Broers, Henry
Bromenshenk, Kevin
Brooks, Ann
Brophy, Matt
Brown, David
Brown, Gertrude
Brown, Jeffry
Brown, Jim and Jean
Brown, Lloyd
Brown, Sally
Bruch, Henry
Brundage, Roger
Bruno, Lou
Buchanan, T.
Buchholz, Neil
Buck, Dan
Buckley, Muriel
Bue, Titian
Bull, Tom
Burdette, Eric
Burk, R. L. Stoney
Burke, Don and Julie
Burkett, Dana
Burnett, Bill
Burt, Sheldon
Buttrell, Maggi
Byrne, Kerrie
Bitterroot Ridgerunners Snowmobile Club
Cady, Fred and Katie
Cahill, Julie
Calkas, Jay
Callahan, Leon
Callarman, Steve
Campbell, Bob
Campbell, Francis
Canyon Wedding Chapel
Capp, Richard
Carda, Loyson
Cardella, Richard
Carlson, Helen
Carlson, Katrina
Carlson, Pam
Carmer, Steven
Carroll, Robert
Carson, Robert and Brenda
Carter County Predator Control Board
Carveth, Nell
Cascade Co. Weed & Mosquito Management Dist
Casmer, Robert
Catter, Robert
Cawley, John and Doris
Centner, Randy
Cervelli, Jim
Chadwick, Francis
Chalgren, Bill
Chamarro, George
Champion, Robert
Chase, Ron
Chenoweth, Jim
Chessin, M.
Chestnut, Marilyn
Christopher, John
Church, Tom
Cieslak, Sheldon
Claassen, Diana
Clark, E.R.
Clark, Lisa
Clark, Richard
Clark, Scott
Clarkson, Bill
Clawson, Chip
Clay, Carolie

Clousing, Richard
Coalition for Canyon Preservation, Inc.
Cobb, John
Cockrum, Earl
Coe, Clarence
Cohen, Ferne and Martin
Cole, David
Collins, Jim
Colson, Chris
Confluence Timber Company
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COMMENTS AND RESPONSES

The following pages are the agencies' responses to substantive public comments on the DEIS. The comments have been taken from the letters submitted during the public comment period.

The comments and responses are arranged by 16 categories (i.e. planning, alternatives, recreation etc.). Many comments have been grouped and summarized if they were similar in substance. Each comment is followed by the agencies' response.

PLANNING

A1 **Comment:** Over and over again, the DEIS relates to possible problems and provides virtually no site-specific cases of environmental problems caused by improper OHV use. We also question whether this type of programmatic EIS, which is not site-specific, can be used to close millions of acres of public land to nonintrusive OHV use. Why another OHV project to restrict use of public land?

Response: Currently, about 16 million acres of public land are open to motorized wheeled cross-country travel either seasonally or yearlong, which has the potential to spread noxious weeds, cause erosion, damage cultural sites, create user conflicts, disrupt wildlife, and damage wildlife habitat. Problems do not occur equally throughout the analysis area. Over the years, random use in open areas has created trail networks in portions of the analysis area. Some of this use has occurred in riparian areas and on highly erodible slopes.

With an increase of OHV use, the BLM and FS have observed, in some areas, the spread of noxious weeds, soil erosion, damage to cultural sites, user conflicts and disruption of wildlife and wildlife habitat. Some of these areas include: Whitetail/Pipestone area between Butte, Boulder and Whitehall, Montana; North Hills area north of Helena, Montana; Argenta area at the south end of the Pioneer Mountains; an area near Tach Mountain in North Dakota; areas in the Big Belt Mountains; a portion of the Continental Divide National Scenic Trail along the east side of the Nevada Mountain Roadless Area; Badger-Two Medicine area; and the southern edge of the Little Belt Mountains.

The BLM and FS realize that impacts from motorized wheeled cross-country travel may be considerably different across Montana, North Dakota, and South Dakota. Problems are generally less where topography and vegetation physically limit off-road travel or where site-specific planning has restricted use. The agencies are concerned that unrestricted motorized wheeled cross-country travel has the potential to increase these problems.

The use and need for programmatic planning is discussed in Chapter 1, Background section. Designation of areas as open, limited/restricted, or closed to OHV's is accomplished through the resource management planning or forest planning processes. Also see Response A41.

A2 **Comment:** The user organizations that I work with in Dillon, Montana, received this DEIS information on November 25, 1999. When we went to the agency office to get copies before November 25 we were told they did not have the documents. It has been impossible to get the informational packets out to the public in the time frame allowed. It appears that the agencies did not want this information out in the hands of the public in a timely manner. A 60 to 90-day comment period is needed.

Response: The DEIS was distributed to the public by mail on November 15, 1999. The official comment period began on November 26, 1999 when the Environmental Protection Agency (EPA) filed the notice of availability of the DEIS in the Federal Register. The draft was available to the public for a 90-day comment period ending on February 24, 2000. A news release was issued in November, 1999 announcing the availability of the DEIS for a 90-day public comment period and another news release announcing the dates, times and locations of 35 open houses was also issued in November. Local BLM and FS offices issued news releases locally prior to the open houses in their area. Open houses were held in November, December, and January. In early February, the agencies issued a news release to remind people the comment period would end on February 24, 2000. For additional information see Summary of Public Involvement section in Chapter 4 of the FEIS.

A3 **Comment:** Both the BLM and FS regulations (43 CFR 8341.2 and 36 CFR 295.2 and 295.5) allow closures and restrictions in all circumstances when undue damage and/or destruction occurs from any type of conveyance, including OHV's. In view of the fact that you already have the authority to

accomplish control and restrictions on the type of travel and areas that are used, I see no need for again going through the costly and long drawn out procedure of EIS plan amendments.

Response: The FS and BLM regulations, such as 36 CFR 219 and 295 for the FS and 43 CFR 8340 for the BLM, have given the agencies the authority and direction to plan, monitor and manage the use of off-road vehicles on public land. If vehicles traveling off roads or trails are causing considerable adverse effects to soil, water, wildlife, vegetation, or are causing user conflicts, the agencies have the authority to immediately close areas, roads or trails. This authority has been used over the years in a number of areas but is generally done through site-specific planning with public involvement. Designation of areas as open, limited/restricted, or closed to OHV's is accomplished through the resource management planning or forest planning processes. See Chapter 1, Background section.

A4 **Comment:** It is our understanding that if Alternative 2 is adopted the next logical activity that the FS and BLM would implement is the establishment of travel management plans. It is our position that travel management plans should be established at the District level because employees, county governments, and forest users have the best information available to make informed decisions concerning management practices of our valuable resources.

Response: After the plan amendment is completed, the BLM and FS would continue to develop travel management plans for geographical areas at the local level (BLM field offices and FS national forests and grasslands or ranger district offices) with public involvement. See Appendix B for more information on implementation and guidance for site-specific planning.

A5 **Comment:** While proposing on the one hand to allow continued use of currently existing nondesignated roads and trails in all four alternatives, the DEIS proposes on the other hand to prevent further resource damage by eliminating further expansion of motorized routes. This is an open acknowledgment by the agencies that resource damage is occurring now as a result of the prior unauthorized expansion of nondesignated roads and trails. However, the DEIS does not propose to close them immediately to the types of vehicles causing the damage. This is in direct violation of the immediate closure requirements of 36 CFR 295. In compliance with CFR 295 and 261, we request immediate action to terminate use on user-created routes until analysis on each can be completed to insure compliance with these CFR's.

Response: Under BLM regulations (43 CFR 8341.2(a)) and FS monitoring of the effects of vehicle use off forest development roads (36 CFR 295.5), the authorized officer must determine that off-road vehicles are causing or will cause considerable adverse effects. Neither agency has information that vehicle travel on all user-created roads and trails are causing or will cause considerable adverse effects. This authority has been used numerous times over the years in a number of areas but is generally done through site-specific planning with public involvement.

A6 **Comment:** The DEIS is almost silent on several classes of OHV's. The DEIS, page 3, states that the purpose of the EIS is to address the impacts of wheeled vehicles including four-wheel drive vehicles and sport utility vehicles. They are never discussed in the EIS. Also, what happened to trail motorbikes (those not registered for highway use).

Response: The EIS and plan amendment addresses motorized wheeled vehicles (motorcycles, four-wheel drive vehicles, sport utility vehicles, all terrain vehicles, etc.). Motorcycles includes trail motorbikes. The EIS and plan amendment discusses cross-country travel by motorized wheeled vehicles, which refers to all of those discussed on page 3 of the DEIS. A definition of motorized wheeled vehicles has been included in the FEIS Glossary.

A7 **Comment:** By giving ATV users the virtual right to drive most anywhere, this designation does nothing to prevent the abuses of ATV's, and provides no legal basis by which abusive off road use is defined under penalty of law.

Response: Under current management, ATV's or any motorized wheeled vehicle is allowed to travel cross-country in areas designated as open seasonally or yearlong, approximately 16 million acres. Under Alternative 2 in the DEIS, motorized wheeled cross-country travel would be prohibited with some exceptions. This would reduce cross-country driving as discussed on pages 28 and 29 of the DEIS and see Chapter 2, Alternative 5 (Preferred Alternative) of the FEIS.

For the BLM, designation of public lands as limited is provided for under 43 CFR 8342.2. Designation of public lands is accomplished through the BLM's resource management planning or amendment process such as this EIS and plan amendment. For the FS, designation of NFS lands as restricted is provided for under 36 CFR 295.2 and is accomplished through continuing land management planning. To be legally enforceable, these area designations must be published or posted as required by 43 CFR 8342 for the BLM or 36 CFR 261.51 for the FS.

A8 **Comment:** There needs to be more brought out concerning the interim period of time until site-specific planning is complete.

Response: This EIS and plan amendment is a programmatic document addressing motorized wheeled vehicle use in areas that are currently designated as "open" seasonally or yearlong to OHV's. It would amend forest plan and resource management plan "open" designations and change the designation to "limited" or "restricted." This EIS and plan amendment would also provide management guidance for these areas until the subsequent preparation of site-specific plans where roads and trails would be designated and management guidance could be modified as discussed under a specific alternative.

For example, the Preferred Alternative (Alternative 5) in the FEIS, motorized wheeled cross-country travel would be permissible for a distance up to 300 feet of roads and trails for camping; however, in some areas this distance could be modified through subsequent site-specific planning. In the interim period, until site-specific planning is completed in an area, the distance would be 300 feet but this could change with site-specific planning.

All areas affected by the EIS and plan amendment would be prioritized based on several factors as discussed in Appendix B of the FEIS. Site-specific planning on 16 million acres is not feasible within a 24-month time period. As with any management plan, funding levels may affect the timing and implementation of management actions and project proposals, but will not affect the decisions made in the plan amendment.

A9 **Comment:** How can three different states be tied into a blanket plan to restrict access? Three states cannot and should not be governed by a single set of policies. Each state and area within the state should be under the control of local agencies and people so local needs can be considered and adopted.

Response: Oftentimes, BLM and NFS lands are intermingled, and the agencies believe it is better customer service to have consistent policies across agency boundaries. The analysis area was also chosen because it aligns well with the BLM Montana State Office jurisdictions and fairly closely with the Northern Region of the FS without splitting state boundaries significantly. After the plan amendment is completed, the BLM and FS would continue to develop site-specific plans for geographical areas at the local level with public involvement.

A10 **Comment:** The DEIS states that resource conditions, including vegetation, watershed and wildlife habitat, do not warrant prohibition of OHV use on all public lands, including all roads and trails. How did the FS and BLM arrive at this conclusion?

Response: One alternative eliminated from detailed study would close all areas (or prohibit OHV use on all public lands), including all roads and trails, to OHV's. The BLM and FS recognize in their respective resource management plans and forest plans, EO's, policy, and manual direction, that OHV use is a valid recreational activity.

Neither agency has information that vehicle travel in all areas or on all user-created roads and trails is causing or will cause considerable adverse effects. The BLM and FS realize that impacts from motorized wheeled cross-country travel may be considerably different across Montana, North Dakota, and South Dakota. Problems are generally less where topography and vegetation physically limit motorized wheeled cross-country travel or where site-specific planning has restricted use. Over the years, random use in open areas has created trail networks in portions of the analysis area. Some of this use has occurred in riparian areas and on highly erodible slopes. For further information see Chapter 1, Purpose and Need of the DEIS.

With an increase of OHV use, the BLM and FS have observed, in some areas, the spread of noxious weeds, soil erosion, damage to cultural sites, user conflicts and disruption of wildlife and wildlife habitat. Some of these areas include: Whitetail/Pipes tone area between Butte, Boulder and

Whitehall, Montana; North Hills area north of Helena, Montana; Argent area at the south end of the Pioneer Mountains; an area near Tach Mountain in North Dakota; areas in the Big Belt Mountains; a portion of the Continental Divide National Scenic Trail along the east side of the Nevada Mountain Roadless Area; Badger-Two Medicine area; and the southern edge of the Little Belt Mountains.

A11 **Comment:** The EIS should provide a rationale for selecting the preferred alternative. The factual information and research underpinning the recommendations contained in the EIS are insufficient to support those recommendations.

Response: A discussion on selection of the Preferred Alternative is included at the end of Chapter 2 in the FEIS and in the FS Record of Decision.

A12 **Comment:** Executive Order 11644 states, "The agency shall monitor the effects of the use of off-road vehicles on land under their jurisdictions." Monitoring baseline or future conditions is not adequately discussed in the draft EIS and should be included as part of this analysis.

Response: Monitoring of OHV travel at BLM and FS offices indicates that problems exist where unrestricted motorized wheeled cross-country travel is allowed. Many units have begun or completed site-specific planning. Most notable efforts are the Elkhorn Mountains near Helena, Montana and the Whitetail-Pipes tone area near Butte, Montana. BLM and FS monitoring showed a need for the EIS and plan amendment. For additional information, see pages 3 and 4 of the DEIS. Monitoring is also discussed in Appendix B of the DEIS and FEIS.

A13 **Comment:** Additional discussion should be added in the Purpose and Need section to address society's growing need for a diversity of recreation, what recreation means to all of us, the need to maintain existing motorized recreation opportunities and the need to create new opportunities for motorized recreationists.

I carefully reviewed the BLM's regulations for managing OHV recreation (43 CFR 8340-8343). These regulations provide comprehensive direction for not only implementing the EO's (11644 and 11989), but also for managing OHV use across a broad spectrum of recreation activities and resource needs. The FS and BLM should incorporate positive goals into the FEIS before pursuing the regulations outlined in the draft alternatives.

Response: Under the Background section in Chapter 1 of the DEIS, the BLM and FS recognize in their respective resource management plans and forest plans, policy, and manual direction, that OHV use is a valid recreational activity when properly managed. Also, under the Scope of the Analysis section in Chapter 1 of the DEIS, the BLM and FS recognize that through site-specific planning the opportunity exists to identify areas for additional trails, trail improvement, or specific areas where intensive OHV use may be appropriate to meet recreational needs.

A14 **Comment:** On page i, and again on page 3, the DEIS speaks to the plan amendments with very little information on exactly how the plans will be amended. Where are these various resource and management plans outlined? How will this action change current plan goals and objectives for OHV management? Will the related Management Area prescriptions change, and what effect will this have on future management options?

Response: This EIS and plan amendment would amend the 18 BLM and FS plans displayed in Table 1.1 of the FEIS. The BLM and NFS lands affected by this proposal are those lands currently designated open seasonally or yearlong to motorized wheeled cross-country travel. This amendment would not change the current limited/restricted yearlong or closed designations, or designated intensive off-road vehicle use areas. Under the Preferred Alternative in the FEIS, those lands currently open to motorized wheeled cross-country travel would be designated limited or restricted yearlong. This EIS and plan amendment would also provide management guidance for these areas until the subsequent preparation of site-specific plans where roads and trails would be designated and management guidance could be modified as discussed under the Preferred Alternative.

A15 **Comment:** The National Environmental Policy Act (NEPA) needs to guide the process involved with the interagency plan amendment on OHV use. An agency thus has a duty to study all alternatives that appear reasonable and appropriate for study as well as significant alternatives suggested by other agencies or by the public during the comment period.

Response: Under the regulations for implementing NEPA, the agencies shall "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." (40 CFR 1502.14(a)). The DEIS presents the No Action Alternative and four other alternatives for management of OHV's on public lands administered by the BLM and FS that are currently designated open seasonally or yearlong and open to motorized wheeled cross-country travel. The alternatives address area designations and provide direction for subsequent site-specific planning. The DEIS also addressed several other alternatives that were eliminated from detailed study. The reasons for these alternatives being eliminated are discussed on pages 9, 10, and 11 of the DEIS.

A16 **Comment:** A recent Montana Federal District Court case, Montana Snowmobilers Assn v. Wildes, emphasized 1) that errors in travel maps are governed by relevant forest plan standards under the National Forest Management Act, and 2) that ORV closures made by the forest plan are enforceable without further NEPA analysis. I have reviewed all National Forest Plans for the national forest units within the state of Montana and the Custer NF in south Dakota and North Dakota. None of those plans authorize the creation of user-created trails. A few of the plans authorize the designation of motorized use areas on the travel maps or in the plan (e.g., Lewis and Clark NF), however, use outside those areas off of designated open trails and roads is not authorized. Therefore, closure of any area not affirmatively designated as an open area by an area designation (not designation of an authorized trail or road for ORV use within a management area) to user-created trails is simply plan enforcement without the need for more site-specific NEPA analysis. Resource Management Plans under the Federal Land Policy and Management Act are governed by similar rules. FLPMA provides that the BLM shall "develop, maintain and when appropriate, revise land use plans which provide by tracts or areas for the use of the public lands." The RMP's I have reviewed do not authorize the creation of user-created trails. At the very minimum, user-created trails outside of areas explicitly designated as open must be closed (this means area designations, not areas containing designated roads or trails where travel has been limited).

Response: The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel. In areas open to motorized wheeled cross-country travel, the creation of trails through repeated use is not considered criminal or willful unless construction or maintenance activities are occurring. The BLM and FS have the authority to immediately close areas or trails where considerable adverse effects occur to soil, water, wildlife, vegetation, or are causing user conflicts. This authority has been used over the years in a number of areas but is generally done through site-specific planning with public involvement. Additional information on current resource management plan and forest plan direction is provided in Chapter 1 of the FEIS. For additional information, see Response A19.

A17 **Comment:** We do not need any more land shut off to the general public. The road closures continue yearly without comment. The public should be allowed to participate in the process of identifying road and trail systems. Public comments are needed to assist in delineating what routes are to be open to OHV use.

Response: After the plan amendment is completed, the BLM and FS would continue to develop travel management plans with public involvement at the local level for geographical areas (i.e. landscape analysis, watershed plans, activity plans). Through site-specific planning with public involvement, roads and trails would be inventoried, mapped, analyzed, and designated as open, seasonally open, or closed.

A18 **Comment:** To meet the rigorous NEPA standards, this entire issue must be completely reformatted premised on totally redirected objectives created by all the public, not just a selected few motorized elements in secret. It is obvious from the proposed process description that neither agency permitted nor intended for the public to identify the real motorized abuse problems and issues of substance and to identify the numerous viable resolutions thereof before both agencies generated their exclusive and fraudulent solution. The alternatives in the DEIS were not developed in an open process. Of the 3,408 comments received during the initial comment period, 68% wanted more restrictions on OHV's. It is beyond my comprehension how the FS and BLM failed completely to honor these public comments, every alternative is pro-OHV.

Response: Public comments during scoping and on the DEIS were used to identify issues to be addressed, necessary analysis to be completed, and alternatives to consider in the process. Substantive comments on a DEIS are further addressed in the final document. The process is not designed to be a voting process, but a way to look for the rationale behind comments, making sure that all possible issues have been analyzed and potential alternatives have been identified for the decision-makers. Public comment is considered along with economic, legal, social and resource issues.

A19 **Comment:** We reiterate the fact that the agencies are mistaken in their assertion that site-specific NEPA must be conducted in order to close nonsystem roads. We contend that there was never any NEPA done to open these roads. When these routes were created, they became illegal on NFS lands. That should have been the time to conduct NEPA analysis. It is wrong to state that site-specific NEPA must be done to close illegal motorized trails.

Response: The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel. These lands were designated open or limited/restricted seasonally through each agency's planning and environmental review processes consistent with Federal Land Policy and Management Act (FLPMA), National Forest Management Act (NFMA), and NEPA. The resource management plans and forest plans that would be amended by this EIS and plan amendment are displayed in Table 1.1 of the DEIS.

For the FS, constructing, placing or maintaining any kind of road or trail is prohibited without a special use permit. In areas that allow motorized wheeled cross-country travel, the creation of trails through repeated use is generally not considered criminal or willful unless construction or maintenance activities are occurring.

For the BLM, in areas that allow motorized wheeled cross-country travel, the creation of roads or trails through repeated use is considered casual use. Casual use means activities involving practices that do not ordinarily cause any appreciable disturbance or damage to the public lands. However, to construct or maintain a road or trail on public land requires a right-of-way or temporary use permit.

A20 **Comment:** First, as you stated in your public statement, this proposal will not affect western Montana greatly because most of the land is wooded and not conducive to off-road travel. If this is true, then why was this land included in your request. If it really did not or would not affect the area, then there was no need to include it in the proposal.

Response: The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel. This includes lands in western Montana. Alternative 3 in the DEIS would leave lands in western Montana open to motorized wheeled cross-country travel. Preliminary analysis indicated that even though a significant amount of public lands are open to motorized wheeled cross-country travel in western Montana, current technology of OHV's generally has limited the expansion of user-created routes because of relative steepness and vegetation. However, this technology could change in the future. Problems exist in western Montana where unrestricted motorized wheeled cross-country travel is allowed and Alternative 3 was not identified as the preferred in the DEIS.

A21 **Comment:** The reason that "only a site-specific inventory would enable the agencies to determine the impacts, suitability and appropriateness of each individual road or trail" is more an argument for closing these trails than it is for leaving them open. The fact that this analysis would be difficult does not alleviate the agencies' burden of considering it.

The agencies have fundamentally misunderstood the importance of this lack of knowledge under the National Environmental Policy Act, 42 U.S.C. 4321 et seq., (NEPA), in at least two distinct ways. First, the agencies' uncertainty regarding the location and the extent of current motorized use cannot, under NEPA, preclude consideration of the alternative most protective of natural resources - limiting all motorized travel to existing roads and designated motorized trails. Second, NEPA requires the agencies to acknowledge and account for this uncertainty in their discussion of all alternatives in which that uncertainty could pose adverse environmental effects; in the DEIS, they have failed to do so.

While the absence of a site-specific inventory of user-created routes may affect the agencies' evaluation of nonenvironmental impacts resulting from

those routes' closure, that uncertainty does not prevent, or excuse, the agencies from meeting NEPA's requirements. Neither section 102(2)(B) or (C) (of NEPA) can be read as a requirement that complete information concerning the environmental impact of a project must be obtained before action may be taken.

The agencies' discussion in the DEIS of the environmental impact of allowing continued travel along user-created trails displays a corresponding misunderstanding of NEPA's basic requirements. Every alternative proposed within the DEIS would allow travel along existing user-created trails. The location, number, and use of such trails constitute information "relevant to reasonably foreseeable significant impacts" on the environment. 40 CFR 1502.22. According to the agencies' discussion of "Alternatives Eliminated from Detailed Study," however, information as to how many such trails exist, where they lie, or how many users travel along them is not available. See DEIS, page 9. That information is crucial to any assessment of the environmental impacts of allowing continued travel along those trails.

Response: The EIS and plan amendment must briefly discuss the reasons for eliminating alternatives from detailed study (40 CFR 1502.14(a)). As discussed in the DEIS, an alternative considering forest development roads and trails and BLM designated routes was eliminated from detailed study because it does not meet the purpose and need of the proposal. The purpose and need of the proposal is to amend forest plan and resource management plan OHV area designations to provide direction that would avoid further resource damage, user conflicts, and related problems, including new user-created roads and trails, associated with cross-country OHV travel until subsequent site-specific planning is completed. To meet the purpose and need of this proposal, the decision needs to be timely and the level of analysis needs to be commensurate with a broad-level document of this type. Completion of a site-specific inventory would affect the timeliness of a decision on area designations and is not necessary in making a decision on area designations for public lands as open, restricted/limited or closed to motorized wheeled cross-country travel.

Neither the BLM nor FS, through this EIS and plan amendment, are considering section 102(2)(B) or (C) of NEPA as a requirement that complete information concerning the environmental impacts of a change in OHV designations from "open" to "limited/restricted" must be obtained before action may be taken. As discussed in the DEIS, given this is a programmatic document, the effects are estimated for the three-state area and the quantified effect levels should be considered relative, not absolute. The level of detail in the environmental consequences includes information necessary to support and clarify the impact analysis. For additional information, please see pages 4 and 9 of the DEIS.

Incomplete or unavailable information relates to the evaluation of reasonably foreseeable significant adverse effects when that information is essential to a reasoned choice among alternatives (40 CFR 1502.22). This applies to those alternatives analyzed in the EIS but does not apply to those alternatives which were eliminated from detailed study.

A22 **Comment:** The DEIS is not consistent with the FS's current travel management scheme. The FS currently has a scheme for managing all motorized use. This scheme is based on the requirements of NFMA, the CFR and the agencies' own policy manuals. Under this scheme all motorized travel and motorized travel restrictions fall under the category of areas or routes; there are either open areas where cross-country travel is allowed or closed areas where travel is allowed only on designated routes. All forest travel planning on every national forest and grassland follows this same basic scheme. The preferred alternative would close areas while leaving undesignated routes within those areas open to motorized use. This creates a third, very confusing, category of closed areas where travel is allowed off designated routes. This is a significant and unprecedented departure from the agencies' well established travel planning that is without any statutory or regulatory authority.

Response: There are three categories for the designation of NFS lands for specific types of off-road vehicle use: open, restricted, or closed. On NFS lands, the continuing land management planning process is used to allow, restrict, or prohibit use by specific vehicle types off roads (36 CFR 295.2(a)). A "closed area where travel is allowed off designated routes" is considered a restricted area. This is consistent with the FS definition of restricted as defined in FS Manual 2350.

A23 **Comment:** The preferred alternative violates the 1972 and 1977 EO's governing the use of off-road vehicles on all federal public lands. The DEIS fails to assess how effectively each alternative provides for immediate and long-term protection of public lands and resources as required by EO 11644.

Response: The purpose of EO 11644 is to "establish policies and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands." As required by Section C of EO 11644, the FS and BLM developed and issued regulations "to provide for administrative designation of specific areas and trails on public lands on which the use of off-road vehicles may be permitted, and areas in which the use of off-road vehicles may not be permitted." Designation of areas as open, limited/restricted, or closed to OHV's must be made through the planning process such as this EIS and plan amendment. Through the EIS and plan amendment process, the agencies can specify in which areas OHV's may be permitted consistent with the EO's and regulations.

A24 **Comment:** I am a little confused about this plan's position on R.S. 2477 roads. Could you please clarify your exact position? Few, if any, inventories of R.S. 2477 rights of way exist on 8.5 million acres of BLM land. All roads, trails, and ways existing in 1974 on BLM lands qualify as R.S. 2477 right-of-way. Area restrictions cannot proceed until these are identified.

Response: Under the Preferred Alternative in the FEIS, the BLM and FS would restrict motorized wheeled cross-country travel yearlong. These areas would be designated limited or restricted under BLM and FS regulations (43 CFR 8342 and 36 CFR 295). The BLM and FS do not have a complete road inventory. Through subsequent site-specific planning, the BLM and FS would designate roads and trails for motorized use. Our proposal would not diminish any rights under Revised Statute 2477 (R.S. 2477).

Section 8 of the Act of July 26, 1866, (R.S. 2477) provided: "The right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted." Although this statute, 43 U.S.C. 932 (R.S. 2477), was repealed by Title VII of the Federal Land Policy and Management Act of October 21, 1976, many rights-of-way for public highways obtained under the statute exist or may exist on lands administered by the BLM and FS. The Secretary of the Interior has requested that the BLM defer any processing of R.S. 2477 assertions except in cases where there is a demonstrated, compelling, and immediate need until such time as the Department completes final rulemaking on the statute. The FS has had a moratorium against processing any R.S. 2477 assertions since September 25, 1997.

A25 **Comment:** For decades, the "forty-inch rule" prohibited off-road vehicles wider than 40 inches from driving on national forest trails. "The 40 inch rule" was designed to accommodate the handlebars of a trail motorcycle, but prohibit larger vehicles. Vehicles wider than 40 inches, such as today's ATV's, could drive on roads, not trails. The EIS should include an alternative which would restore trails to their original, historic purposes as quiet paths for the passage of people and animals. An example of FS and BLM pro-motorized official attitude is the arbitrary and illegal FS travel plans issued in 1988 and 1997 which simply, illegally, accommodated ever increased motorized equipment size, from bikes to 3-wheelers, to ATV of 40-inch maximum to 50-inch size.

Response: This was addressed on page 7 of the DEIS. The "50-inch" policy only applies to forest development trails, commonly called "System Trails." This EIS and plan amendment does not address specific trails. Rather, it addresses motorized wheeled cross-country travel through area designations; therefore, the 50-inch policy for trails is not addressed. Specific types of use would be addressed during site-specific planning.

A26 **Comment:** The plan is totally unacceptable because the plan legitimizes a vast system of illegal OHV roads. Allowing use on illegal pioneered trails is an enormous error and this review should be restarted on an impartial and legal basis. You are condoning and legalizing illegal, damaging and abusive random OHV trails and roads all over the country. By allowing damage such as illegal trails to become part of the public trail system, the interagency proposal defies public input, rewards illegal activities, and skirts the real OHV issues.

Response: The BLM and FS have a number of authorities that allow them to manage OHV's and user-created roads and trails.

For the FS, constructing, placing or maintaining any kind of road or trail is prohibited without a special use permit. In areas that allow motorized wheeled cross-country travel, the creation of trails through repeated use is generally not considered criminal or willful unless construction or maintenance activities are occurring.

For the BLM, in areas that allow motorized wheeled cross-country travel, the creation of roads or trails through repeated use is generally considered casual use. Casual use means activities involving practices that do not ordinarily cause any appreciable disturbance or damage to the public lands. However, to construct or maintain a road or trail on public land requires a right-of-way or temporary use permit.

The alternatives considered in this EIS and plan amendment will not change the status of roads and trails in open areas that are currently in use. However, until inventory is completed under site-specific planning, these roads and trails will remain as unclassified (they do not become part of the trail system) until it is determined whether they should become part of the BLM and FS permanent road and trail system or need to be permanently closed. The BLM and FS have the authority to immediately close areas and trails if vehicles traveling off road or trail are causing considerable adverse effects to soil, water, wildlife, vegetation, or are causing user conflicts. For additional information, see pages 6 and 7 of the DEIS.

A27 **Comment:** I do not believe Alternative 2 adequately protects these lands. Alternative 2 should not be put into place during the so called interim period while you decide what to do. The site-specific planning can take a very long time and in the meantime more and more of these OHV roads are being established. By leaving motorized traffic open on all previously existing track, it has encouraged criminal behavior on the part of OHV riders. OHV riders have actively sought to leave as many tracks as possible to establish the history of use referred to in the DEIS.

Response: Currently, about 16 million acres of public land are open to motorized wheeled cross-country travel either seasonally or yearlong. The alternatives considered in this EIS and plan amendment would not change the status of roads and trails in open areas that are currently in use, but would prohibit motorized wheeled cross-country travel. However, until inventory is completed under site-specific planning, these roads and trails would remain as unclassified until it is determined whether they should become part of the BLM and FS permanent road and trail system or need to be permanently closed. The agencies recognize there would continue to be some intentional and unintentional cross-country travel. The BLM and FS have the authority to immediately close areas and trails if vehicles traveling off road or trail are causing considerable adverse effects to soil, water, wildlife, vegetation, or are causing user conflicts. For additional information, please see pages 6 and 7 of the DEIS.

Appendix B deals with timeliness by describing a priority setting process. Site-specific planning is already underway in a number of areas, such as the Little Belts on the Helena National Forest, Miles City Field Office, Lewis and Clark National Forest and others.

A28 **Comment:** The idea is good, but no alternative will be effective in stopping OHV damage because existing user-created roads will remain open. The DEIS fails to solve the problems identified in the purpose and need and conflicts with current CFR's (including 36 CFR 295.2). No site-specific analysis exists which supports opening up user-created trails to OHV's.

Response: The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel. These lands were previously addressed in resource management plans and forest plans which designated the lands as open to OHV use through an EIS process consistent with the BLM and FS planning regulations. This EIS and plan amendment would amend those plans and designate the lands as limited or restricted yearlong. For additional information on user-created roads and trails, see Response A26.

A29 **Comment:** The FS and BLM appear bent on totally circumventing the NEPA process and the host of mandatory associated legal requirements of e.g., ESA, Clear Water Act, Wilderness, Native American cultural resources, wildland, wildlife, watersheds, public safety issues, etc., with this generic EIS and plan amendment process which specifically intends to preclude analyzing numerous directly involved issues such as snowmobiles, the thousands of miles of illegally-created roads and trails by motorized equipment, abuses on federal land over the past 30 years, and a host of

directly associated natural resource problems created by motorized equipment and use on federal land. This transparent and aborted process in no manner addresses the cumulative effects and significant factor requirements mandated by the NEPA and other federal legislation and policy to address and resolve the numerous publicly recognized problems generated by the total lack of enforcement by both the FS and BLM of rampant motorized equipment abuses on our public land over the past three decades.

To selectively exclude and ignore issues and problems that both the FS and BLM believe are simply too hot to handle is specifically outside the mandates of NEPA, which requires that a cumulative effects analysis be done within the geographic scope (27 million acres) of the proposed action. In this case, the EIS specifically must include all effects of snowmobiles and all other motorized equipment and abuses thereby. To selectively exclude parts of the motorized problem is simply illegal, per NEPA, and nonproductive.

The cumulative effects analysis is totally inadequate. Most of the information is so general that it could apply to almost all activities which take place on public lands. The questions which need to be answered are: 1) What are the specific direct and indirect effects of closing some 15 million acres to cross-country OHV travel; 2) What are the cumulative effects of restricting cross-country, OHV travel under this proposal, coupled with past actions of closing roads, trails, and areas to OHV use, and what are the cumulative effects of existing OHV closures and your proposal on the listed resources?

Response: The EIS and plan amendment is intended to be a programmatic document with a level of specificity and analysis that is broad in nature covering three states and two agencies. Since this is a programmatic EIS, effects are estimated for the three-state area. The quantified effects levels in the DEIS should be considered relative, not absolute. The cumulative effects are addressed under each resource section under Chapter 3, Affected Environment and Environmental Consequences, of the DEIS.

This proposal addresses motorized wheeled vehicles such as motorcycles, ATV's, four-wheel drive vehicles, etc. As discussed in the DEIS on page 17, an alternative to include snowmobile use was eliminated from detailed study because the issues involving snowmobiles are different enough to potentially warrant a separate analysis. Since snowmobiles are usually driven on a layer of snow, their environmental effects are different than those of motorized wheeled vehicles (i.e. erosion, sedimentation, weed spread), which come into direct contact with the ground.

A30 **Comment:** What is causing problems is the willful ignoring of scientific bases for improving the health of our public lands. The FS and BLM have a legal obligation to protect the health of our public lands.

Response: The BLM and FS management of public lands and NFS lands is based on the Federal Land Policy and Management Act and the National Forest Management Act along with other applicable laws and regulations. Management specific to OHV's is provided by EO (EO) 11644 and EO 11989 along with each agencies regulations. This EIS and plan amendment and any subsequent site-specific planning will be consistent with those laws and regulations.

A31 **Comment:** The topic of cross-country travel allowed currently is very misleading to uneducated public. Because currently cross-country travel is not allowed in most of the Gallatin Valley forests, an (R) on the maps means restricted and most of the public is not aware of the map allocations and restrictions.

Existing maps for Northwest Montana are in error. There are no area closures in the North Fork of the Flathead except for Big Mountain and Big Creek exist.

The DEIS maps which show areas closed on the Flathead National Forest are incorrect. The maps are such a large scale it is difficult to see where these areas are, but all the areas north of Whitefish, Montana shown as closed appear to be based on the Forest Plan Roadless Dispersed Recreation, MA-2. Any portion of the Flathead National Forest shown as closed based on MA-2 is incorrect as documented by the Regional Forester's Responsive Statement to MWA Forest Plan Appeal.

Response: This EIS and plan amendment does not address lands currently closed to motorized wheeled cross-country travel yearlong by current resource management plan and forest plan direction. These lands are displayed on Map 1 in the DEIS.

The maps have been corrected with respect to errors in northwest Montana. The maps reflect current resource management plan and forest plan direction (No Action) and also display the other alternatives.

A32 **Comment:** I find the proposed amendments of opening all 4 wheel tracks to ATV's very misleading unless this statement means all logging roads now gated, all old jeep roads now gated are to be opened.

Your document fails to display and discuss the fact that 66% of NFS lands and 40% of the BLM lands are already effectively closed to OHV use. One has to use Tables 1.2 and 2.1 to obtain this information. Granted some of these restrictions are seasonal but most seasonal restrictions are for spring/summer/fall seasons which effectively closes the area to OHV's.

I am dismayed that you label the baseline as the no action alternative. Actually, plenty of action has taken place over the years relating to OHV use in forest plans and resource management plans. In fact, southwestern Montana has in place a very detailed OHV plan covering Federal and State land which is more restrictive in some areas and at certain times of year then any of your alternatives. Now, this plan covers a pretty good chunk of real estate yet I find no mention of it in your EIS.

NEPA requires the use of the best available information. You have failed to comply with this requirement. Because this is a Forest Plan amendment, you used an interpretation of how each Forest Plan Management Area dealt with OHV use. This is displayed in Table 3.1. However, this is not the best information and it is not what has been implemented on-the-ground. Since your proposal would affect only those acres that are presently open to cross-country OHV use and those that are partially open to such use, you need to discuss and display acres partially open to such use, you need to discuss and display current travel plan restrictions on cross-country, OHV travel. This could be the current situation or the no action alternative. The definition of closed or restricted areas (DEIS, page 99) states that closed areas include areas closed by 36 CFR 261 or by law. This is not the case. Many areas that are currently closed or restricted under 36 CFR 261 were not included in your analysis. This would make a great change in the acres of being affected by your proposal.

Response: This EIS and plan amendment would amend the BLM and FS plans displayed in Table 1.1. Under the preferred alternative in the DEIS, those lands currently open to motorized wheeled cross-country travel either seasonally or yearlong would be designated limited or restricted. The plan amendment would change the area designation. The BLM and NFS lands affected by this proposal are displayed in Table 3.1 and lands affected by each alternative are displayed in Table 3.2. This information is based on current resource management plan and forest plan direction.

Some BLM field offices and national forests have completed site-specific planning and implementation of current resource management and forest plan direction. This EIS and plan amendment would not change those site-specific planning decisions. Existing road and trail restrictions are not affected by this decision.

A33 **Comment:** We do not believe that any of the alternatives adequately address our concerns that the Continental Divide National Scenic Trail should be managed as a nonmotorized route, as contemplated by the National Trail System Act and FS policy. In view of this policy as well as the legal requirements of the National Trails System Act, an exception should be added to the selected alternative, to read: "Motorized travel would not be permitted on any segment of the Continental Divide National Scenic Trail that has been constructed since designation of the trail route in 1989."

Response: A portion of the Continental Divide National Scenic Trail is within the affected environment of this EIS and plan amendment. The purpose of this EIS and plan amendment is to address motorized wheeled cross-country travel in areas currently open seasonally or yearlong. This EIS and plan amendment does not address specific roads and trails. Through subsequent site-specific planning the BLM and FS would designate roads and trails for motorized use.

A34 **Comment:** In the DEIS, page 4 it stated, "The qualified effect levels in the draft EIS should be considered relative, not absolute." What qualified effects? There is not one quantified effect in any of the following resource effects: visual quality; recreation, inventoried roadless, recommended wilderness, wilderness study, social, cultural, paleontological resources, vegetation and weed analysis, wildlife, aquatics, air quality, and miner-

als. The fact that you are under a time/budget constraint does not mean that the analysis can not be qualified or discussed in reasonable terms.

Response: The DEIS is intended to be a programmatic document with a level of specificity and analysis that is broad in nature covering three states and two agencies. Since this is a programmatic EIS, effects are estimated for the three-state area. The quantified effect levels in the DEIS should be considered relative, not absolute. Chapter 3 of the DEIS describes the affected environment for each resource followed by environmental consequences for each alternative evaluated in detail. The level of detail in Chapter 3 for each resource includes information necessary to support and clarify the impact analysis. Most of the analysis is qualified rather than quantified because the analysis is programmatic covering three states. Where the analysis is quantified, the effects should be considered relative to each alternative rather than absolute values, such as Figure 3.2 which displays the risk of invasive weed spread and the Economics section.

A35 **Comment:** The effect analysis is very misleading. Most of the discussion centers around all OHV use. There is little separation between cross-country OHV use and OHV use on roads and trails. When one reads this section it gives the impression that all the negative effects of OHV will be mitigated with this proposal. Did your analysis team not know that only 1% of the effects will be reduced leaving 99% of the effect in place. Most of them didn't write like it. Because 99% of the effects remain is a strong case for dealing with the real problem – OHV use on nonsystem roads and trails.

Response: This EIS and plan amendment is intended to be a programmatic document with a level of specificity and analysis that is broad in nature covering three states and two agencies. The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel. The purpose and need of this proposal are to amend forest plan and resource management plan OHV area designations to preserve future options for travel management and provide direction that would avoid further resource damage, user conflicts, and related problems, including new user-created roads and trails, associated with cross-country OHV travel until subsequent site-specific planning is completed. Through subsequent site-specific planning the BLM and FS would designate roads and trails for motorized use. The FEIS also provides a process for addressing other issues during site-specific planning (Appendix B of the FEIS).

It is unknown exactly how many people drive cross-country. This does not refer to those people who just pull off adjacent to a road or trail to park or let someone pass, but to those who actually travel cross-country. Estimates vary up to 10%, depending on location, that people engaged in motorized activities travel cross-country, but recreation specialists and law enforcement personnel estimate when you look at the three-state area from the open grasslands in the east to the heavily forested areas of the west that cross-country travel averages 1% or less of the people engaged in motorized activities. This is a small percentage of the total recreation OHV use, but motorized wheeled cross-country travel does cause problems as identified in the DEIS and FEIS.

A36 **Comment:** The DEIS makes reference in several places that site-specific designation of specific roads and trails is a significant undertaking. We are concerned that this statement will be taken out of context and used by some groups to compel the agencies to prepare an EIS each time site-specific travel management is undertaken. We recommend that the final EIS clarify the meaning of this term and provide guidance as the appropriate level of NEPA analysis for site-specific travel management planning.

Response: The EIS and plan amendment has been revised to clarify the meaning of significant undertaking in Chapter 2 of the FEIS. The appropriate level of NEPA analysis (environmental assessment or EIS) for the site-specific planning would be determined at the local BLM field office or national forest or grassland.

A37 **Comment:** We would be supportive of a management plan that closed specific areas, or for specific time periods based on resource or habitat protection. However, our view of the other alternatives is that they may even be in conflict with other laws and regulations which guarantee access to public lands especially by disabled and aging citizens.

Response: Under the preferred alternative in the DEIS, motorized wheeled cross-country travel would not be allowed on public lands currently open seasonally or yearlong. The preferred alter-

native would not restrict access to public lands but would restrict cross-country travel. The preferred alternative in the DEIS also allows the local BLM or FS offices the option for an exception for persons with disabilities. In the Preferred Alternative in the FEIS, disabled access would be allowed per the Rehabilitation Act of 1973 or as provided for in subsequent site-specific planning. For additional information, please refer to the Management Common section of Chapter 2 in the FEIS.

A38 **Comment:** In the DEIS, page 23, paragraph 2, last sentence; regulations require that ... No CFR or other authority is given.

Response: The citation has been added to the sentence in the FEIS.

A39 **Comment:** A change in management direction would be accomplished through an EIS and an interagency plan amendment. Specifically, it is obvious that to create an interagency plan amendment there must be an existing plan to amend, a parent document which could be modified by an amendment. I do not believe that the FS or BLM have independently or cooperatively ever generated such a parent land use (OHV, ORV) management plan(s) per the NEPA process in Montana, which involved the public and specifically addressed the motorized equipment and traffic (ORV) abuses and interrelated problems and issues on federal land in Montana. Instead, we have seen a litany of travel plans and various land use plans which were generated by the FS and BLM by simple fiat, outside required and prudent NEPA process.

Response: Each BLM field office, and FS national forest and grassland manages OHV's based on its respective resource management plan or forest plan prepared in accordance with the NEPA process. This EIS and plan amendment would amend the 18 resource management plans and forest plans displayed in Table 1.1 of the FEIS. Each of these resource management plans and forest plans included preparation of an environmental impact statement.

A40 **Comment:** An ATV or snowmobile has not just 20, but at least 300 times the impact upon the land, and upon other users, as its rider would have without the aid of a motor. Large vehicles have proportionately deeper, wider, and even longer-lasting footprints. A big SUV distributes more than 3,000 times the net force of a hiker on any trail. If we want to become serious about equal access, we must begin to more fully incorporate this quantitative extent of individual user impacts to the land and to other potential users.

Response: This EIS and plan amendment is intended to be a programmatic document with a level of specificity and analysis that is broad in nature covering three states and two agencies. The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel. The Preferred Alternative would change the designation for these areas from open to limited/restricted yearlong. Through subsequent site-specific planning, the BLM and FS would designate roads and trails for motorized use. At that time, integration of other resource objectives and other types of recreational use would be incorporated along with the extent of individual user impacts.

A41 **Comment:** The 46 Fed. Reg. 18026, 18033 (March 23, 1981) states that "The preparation of an area-wide or overview EIS may be particularly useful when similar actions, viewed with other reasonably foreseeable or proposed agency actions, share common timing or geography. This impact statement would be followed by site-specific or project-specific EIS's." The performance of site-specific travel plans with a 10-15 year window does not fulfill the requirements of NEPA. Site-specific or project-specific EIS's are to follow the overview EIS. A single EIS on multiple projects does not reduce the agency's obligation to fully disclose the environmental consequences of the individual projects. The performance of site-specific travel plans for priority areas at some undetermined future date is inadequate. What is meant by a priority area? Are these areas for which agencies have received complaints of resource damage?

Response: The DEIS is intended to be a programmatic document with a level of specificity and analysis that is broad in nature covering three states and two agencies. This EIS and plan amendment would amend the 18 BLM and FS plans displayed in Table 1.1 and change current open seasonally or yearlong designations to limited/restricted yearlong under the appropriate regulations (43 CFR 8342 or 36 CFR 295). After the plan amendment is completed, the BLM and FS would continue to develop site-specific plans for geographical areas consistent with the appropriate

resource management plan or forest plan. These site-specific plans would include environmental review with public involvement. The regulations for implementing NEPA do not require a specific time period for completion of activity plans, or site-specific plans, prepared under a resource management plan or forest plan. The regulations do require an environmental assessment or environmental impact statement with preparation of a site-specific plan, unless that plan is adequately addressed in a previous environmental analysis.

Appendix B in the DEIS includes a discussion of prioritization of travel planning areas. Several factors would be used to determine the priority for site-specific planning. For additional information, see Appendix B of the DEIS and FEIS.

A42 **Comment:** This DEIS is fatally flawed because the Purpose and Need is contrived with false statements without any documented support. The whole approach of this DEIS is a violation of the National Forest Management Act which mandates land use planning to be done in an integrated manner on each national forest. A blanket approach closing all areas to OHV use when there is no problem is a violation of the Multiple Use Sustained Yield Act. This document demonstrates a bias in favor of one segment of the public over another. This is a clear violation of the U.S. Constitution.

Response: Forest plans may be amended consistent with 36 CFR 219.10(2)(f). Under the preferred alternative in the DEIS, public lands administered by the FS that are currently designated open seasonally or yearlong to motorized wheeled cross-country travel would be designated restricted yearlong under 36 CFR 295. This is within the definition of multiple use, "which includes that some lands will be used for less than all of the resources" (36 CFR 219.3). In addition, vehicle travel would not be prohibited, or closed, as provided for under 36 CFR 295.

A43 **Comment:** The alternatives are in direct violation of the Montana Environmental Protection Act, as well as the FS Manual. On October 20, 1999, the Montana Supreme Court ruled that "the 'delegates' intention was to provide language and protections which are both anticipatory and preventative." They added that "Our constitution does not require that dead fish float on the surface of our state's rivers and streams before its far-sighted environmental protections can be invoked." Sufficient planning and foresight have not been provided for these areas, and that which does exist, provides nothing but negative results in the event that OHV use is continually permitted in these areas.

Response: As discussed on page 3 of the DEIS, about 16 million acres of public land are currently available to motorized wheeled cross-country travel in the analysis area, either seasonally or yearlong, which has the potential to spread noxious weeds, cause erosion, damage cultural sites, create user conflicts, and disrupt wildlife and damage wildlife habitat. Problems do not occur equally throughout the analysis area. Motorized wheeled cross-country travel is generally limited by current technology to areas that are less steep and have more open vegetative communities. Random use in open areas has created trail networks throughout the analysis area. Some of this use has occurred in riparian areas and on highly erodible slopes. The purpose of this EIS and plan amendment is to address the impacts of wheeled OHV travel on open areas that are currently available to motorized wheeled cross-country travel. This would provide direction that would avoid further resource damage, use conflicts, and related problems, including new user-created roads, associated with motorized wheeled cross-country travel until subsequent site-specific planning is completed.

A44 **Comment:** Areas with current seasonal restrictions have already been reviewed and should be excluded from this process.

Response: The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel based on the forest plans and resource management plan displayed in Table 1.1 of the DEIS. All BLM and NFS lands were reviewed through those plans with some lands designated as open to motorized use. This EIS and plan amendment is the process the agencies must follow when amending those plans and OHV designations. This EIS and plan amendment would not change current site-specific planning in areas limited/restricted seasonally.

A45 **Comment:** The language in EO 11644 and EO 11989 is clear. "Off road" is divided into two categories, "areas and trails." The phrase "areas and trails" is repeated 10 times in EO 11644, and twice in the brief EO 11989. The word "area"

must be interpreted, as an off road space that is not a trail. The EO wording "Areas and trails" is explicit and inclusive. Therefore, allowing OHV use on trails only, is in direct contradiction to both EO's 11644 and 11989.

Response: Under EO 11644 each agency issued regulations to provide for administrative designation of the specific areas and trails on public lands on which the use of OHV's may be permitted, and areas in which the use of OHV's may not be permitted. The BLM and FS can specify where OHV's may be permitted. There are currently six BLM OHV intensive use areas, see Table 3.1 in the FEIS.

A46 **Comment:** The DEIS in its present form is incomplete. The data does not support the conclusion. None of the alternatives, except perhaps the no action alternative, can be supported by this document. The scope must be revised to include analysis and comparison of the impacts of all users. Potential and actual impacts of the nonmotorized community must be discussed in equal depth to that of the motorized community and all, not just selected, data and literature must be used to formulate those discussions as well as the conclusions. What this analysis does reveal is the need to apply the same restrictions to all users, not a need for restriction of only selected users.

Response: The management and designation of areas for OHV's is guided by the EO's and each agency's regulations. Designation of areas as open, limited/restricted, or closed to OHV's must be made through the planning process such as this EIS and plan amendment. Other activities, such as hiking or horseback riding, can be addressed during site-specific planning at the local level without a designation process as long as the activity is in conformance with the respective resource management plan or forest plan.

A47 **Comment:** How is incompatibility shown by the photograph on page 35 of the DEIS. There are no rearing horses or gestures of disapproval. The caption could just as well identify compatibility of use.

Response: The photo represents two types of recreation use, horseback riding and riding an ATV, which at times are not compatible uses in some areas. The caption has been revised.

A48 **Comment:** The BLM and FS proposed solution would supersede all lessor federal agency management plans, which require exclusion, control of all motorized equipment, use but have not been enforced. This is illegal piecemealing per NEPA of this massive regional problem, and totally unacceptable as a solution.

The BLM and FS claim "travel plans under development will continue and recent decisions will remain in place"... no change. I do not believe this can rationally and legally be done per NEPA and BLM and FS mandates such as FLPMA, etc. The rational mandated federal management plan policy and law, specifically NEPA, mandates that the parent, larger plan must be first prepared, then subordinate plans on more site-specific areas and subjects are permissible. It cannot be done in reverse order as the FS and BLM intend to do now, e.g., prepare Snowy Mountains Wilderness Study Areas "access EA," while the parent, larger, statewide EIS would be prepared and effected in the next millennium

Response: The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized travel. Public lands administered by each agency that are closed to motorized wheeled cross-country travel yearlong by current resource management plan or forest plan direction are not included in this EIS and plan amendment. These lands are shown on Map 1 in the DEIS. In addition, each agency has some public lands that are currently limited/restricted seasonally. This EIS and plan amendment would not change the current limited/restricted yearlong or closed designations. Under the preferred alternative in the DEIS, public lands currently designated open seasonally or yearlong would be designated limited or restricted yearlong.

Site-specific planning in areas currently limited/restricted can occur consistent with the respective resource management plan or forest plan. Site-specific planning generally does not occur in open areas unless it is accomplished with a plan amendment.

A49 **Comment:** The DEIS violates various provisions of the National Forest Management Act and the Federal Land Policy Management Act by suggesting substantial revisions to recreational use without following requirements for amendment of forest management plans and range management plans.

Response: This EIS and plan amendment would amend the BLM and FS plans displayed in Table 1.1 consistent with the BLM regulations for amending land use plans (43 CFR 1610) and with the FS regulations for amending forest plans (36 CFR 291).

A50 **Comment:** The EIS violates provisions of 42 USC Section 4342 (c) iii because it does not adequately address alternatives to the proposed action, and because it does not adequately address impacts of the no action alternative.

Response: The purpose of this EIS and plan amendment is to address motorized wheeled OHV travel in areas that are currently designated open to motorized wheeled cross-country travel, given the need to address potential problems such as the spread of noxious weeds, erosion, damage to cultural sites, user conflicts, disruption of wildlife, and damage to wildlife habitat. The alternatives provide for various designations of areas (open, limited/restricted seasonally, or limited/restricted yearlong) with some exceptions for motorized wheeled cross-country travel.

The environmental consequences for each of the alternatives, including the No Action Alternative, are addressed in Chapter 3 of the EIS and plan amendment. The level of detail includes information necessary to support and clarify the impact analysis. For additional information, see Response A15.

A51 **Comment:** The designation of travel routes for motorized vehicle use; the construction of OHV routes and facilities intended to support such use; the upgrading, widening, or other modification of existing facilities or routes; the issuance or reissuance of OHV-related Special Use Permits; and similar projects shall not be categorically excluded from environmental analysis under NEPA.

Response: For the BLM and FS, actions that are categorically excluded can be found in Departmental Manual 516 DM 6, Appendix 5 and FS Handbook 1909.15. Categorical exclusions are types of actions that normally do not require the preparation of an environmental assessment or environmental impact statement. Each time a categorical exclusion is used a determination is through a review process.

A52 **Comment:** The citation on page 54 of the DEIS regarding the Sheyenne National Grassland refers to wrong reference in the bibliography.

Response: The citation has been corrected.

A53 **Comment:** There are over 900 articles published in scientific journals and other media confirming the destruction that OHV's cause to the environment. David Sheridan's 1979 Off-Road Vehicles on Public Lands, Council on Environmental Quality Report lists 12 pages of authors and subjects on OHV destruction studied and reported on by the Geological Survey. If the Environmental Impact Statement is in fact a study of the environmental impact, why is there no analysis or reference to this scientific information.

Response: The 1979 Council on Environmental Quality review of Off-road Vehicles on Public Land is referenced on page 3 of the DEIS along with several other major reviews and reports on OHV use. These reports, along with numerous other studies, articles, and research papers, were used in the analysis for the EIS and plan amendment and are listed in the bibliography.

A54 **Comment:** While the delineation of specific trails may be too ambitious for an interim report, the intention and need to focus on user-created trails in the site-specific phase must be a basic, and prominent, part of the plan. As such, I propose the following. The Purpose and Need statements be rewritten to elevate the concern over user-created trails to equal status with concern over cross-country trails. Language should be included which makes it clear that while cross-country travel is to be addressed in the first phase, user-created trails will be a major focus of the site-specific phase.

Response: The Purpose and Need section has been revised to better explain that the proposal is to restrict motorized wheeled cross-country travel on approximately 16 million acres. Subsequently, through site-specific planning, motorized wheeled vehicles would be restricted to designated roads and trails, which will resolve the user-created trails issue.

Under Alternative 5, the Preferred Alternative in the FEIS, it is clearly stated that the BLM and FS would prohibit motorized wheeled cross-country travel yearlong and through subsequent site-specific planning the BLM and FS would designate roads and trails for motorized use.

A55 **Comment:** I suggest that volunteer help can be used to post lands "Closed Unless Posted Open." I volunteer to help the government agencies do the posting that should be done to protect our public lands.

Response: Specific signing of designated roads and trails as open or closed would be done under site-specific planning. Travel management plans for geographical areas would be done through a public involvement process where individuals and/or organizations could work with the agencies on signing and implementation. Local BLM and FS offices gladly utilize volunteers.

A56 **Comment:** By the third paragraph on page 1 you are already mentioning "user conflict" and it is mentioned numerous times throughout this DEIS. This document is supposed to be about resource protection, not social engineering and therefore user conflict/user prejudice has no place here. The small amount of cross-country travel as noted on page 25 can hardly cause much "user conflict." If anything because two recreationists are less like to meet up when traveling cross-country. This is another reason to dispense with "user conflict" as a part of this analysis.

Response: Motorized wheeled cross-country travel has the potential to create user conflicts as stated in the EIS and plan amendment. Under EO 11644, when designating areas the agencies shall locate areas to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands (Sec. 3(3)). When the agencies designate areas as open, limited/restricted, or closed user conflicts must be considered in the planning process.

A57 **Comment:** Why aren't you adopting the Lolo National Forest policy, which is more restrictive than other forests, and have a consistent policy across federal and state lands?

Response: The Lolo National Forest has no lands open to motorized wheeled cross-country travel based on the Lolo Forest Plan. Under the preferred alternative in the DEIS, motorized wheeled cross-country travel would not be allowed in areas currently open seasonally or yearlong to cross-country travel on BLM and NFS lands. The long-term goal is designated routes through site-specific planning. This would provide a consistent policy across agency boundaries.

A58 **Comment:** The alternatives fail to address the purpose and need of the DEIS.

Response: The purpose of this EIS and plan amendment is to address motorized wheeled cross-country travel in areas that are currently designated open to motorized wheeled cross-country travel, given the need to address potential problems such as the spread of noxious weeds, erosion, damage to cultural sites, user conflicts, disruption of wildlife, and damage to wildlife habitat. The alternatives address the purpose and need by providing for various designations of areas (open, limited/restricted seasonally, or limited/restricted yearlong) with some exceptions for motorized wheeled cross-country travel.

A59 **Comment:** Selection of any of the proposed alternatives would establish the current array of system and social routes as the baseline. This could also create a situation that encourages some OHV users to create additional social trails before travel planning is initiated. How do the federal agencies plan to inventory the social routes within the time identified to adequately address future travel planning? If inventories of routes do not exist at the time of decision, how will the agencies know which social trails exist at the time of decision and which are created after the decision? Without adequate baseline information how will you measure if goals are attained? How can enforcement of a decision to prohibit further development of social routes be effective without an inventory of routes?

Response: The alternatives considered in this EIS and plan amendment would not change the status of roads and trails in open areas that are currently in use. However, until an inventory is completed under site-specific planning, these roads and trails would remain as unclassified until it is determined that they should become part of the BLM and FS permanent road and trail system or need to be permanently closed. See Response B37. The BLM and FS have the authority to immediately close areas and trails if vehicles traveling cross-country are causing considerable adverse effects to soil, water, wildlife, vegetation, or are causing user conflicts.

Through site-specific planning, roads and trails would be inventoried, mapped, analyzed, and designated as open, seasonally open, or closed. During site-specific planning, the inventory would be commensurate with the analysis needs, issues,

desired resource conditions and resource management objectives for that geographical area. This inventory may include system roads and trails, unclassified roads, nonsystem trails, and roads and trails on existing recreation maps and transportation plans.

Travel management restrictions would be enforced with the resources available to the FS and BLM. Education programs with an emphasis on responsible use of OHV's and other forms of backcountry travel are key to the development of natural resource ethics and courteous users.

A60 **Comment:** I believe that if social and environmental considerations warrant it, that it would be appropriate to treat BLM land somewhat differently than NFS land (perhaps with different timetables or restrictions) or perhaps to have a different approach to this problem in eastern Montana than in western Montana.

Response: Oftentimes, BLM and NFS lands are intermingled, and the agencies believe it is better customer service to have consistent policies across agency boundaries. However, the alternatives in the DEIS do account for some differences in geographical areas. Under Alternative 3, lands in the Kootenai, Flathead, and Bitterroot National Forests in western Montana would not be affected. Under Alternative 2 in the DEIS, motorized wheeled cross-country travel by the most direct route would be allowed to retrieve a big game animal that is in possession only in certain areas, primarily central and eastern Montana.

A61 **Comment:** I think the plan fails to adequately consider the damage to the land; soil erosion, water quality, noise pollution, wildlife harassment. Look at 36 CFR 295.2. None of the following; weed spread, new road development, disruption of wildlife, and damage to habitat are adequately addressed in the current proposal.

Response: Chapter 3 of the DEIS describes the affected environment for each resource (including soils, aquatics, social (noise), wildlife, vegetation and weeds, recreation and wildlife) followed by the environmental consequences for each of the alternatives evaluated in detail. The level of detail in Chapter 3 includes information necessary to support and clarify the impact analysis and is commensurate with a programmatic document.

A62 **Comment:** The agencies need to be reminded that national direction is for watershed protection and restoration goals as their priority. All action alternatives are inconsistent with those goals and contradict the FS Chief's call to limit motorized use to designated routes only. Why does the OHV proposal directly contradict the directive of FS chief Mike Dombeck?

Response: The FS Natural Resource Agenda has established a number of goals for maintaining and restoring the health, diversity, and productivity of the land, which include: protect and restore the settings of outdoor recreation, determine the best way to access the national forest, reduce impacts of the existing road system, restore watersheds and provide an avenue to collaborate with communities, the private sector and other agencies. This EIS and plan amendment will help initiate and address several of those goals.

A63 **Comment:** If this gets through, what is stopping the BLM and FS from closing all roads and trails except for administrative use and never opening them up again?

Response: Under the Preferred Alternative, the BLM and FS would prohibit motorized wheeled cross-country travel yearlong. After the plan amendment is completed, the BLM and FS would continue to develop site-specific plans for geographical areas at the local level. Through subsequent site-specific planning, the BLM and FS would designate roads and trails for motorized use. Site-specific planning requires environmental review with public involvement.

A64 **Comment:** The DEIS falsely portrays the need for this decision as if no site-specific planning or decisions have been done and that OHV use is rampant over the Federal land.

Response: This EIS and plan amendment would not change the current limited/restricted yearlong or closed OHV designations, or designated intensive OHV use areas. The BLM and NFS land affected by this proposal are those lands currently open seasonally or yearlong to motorized cross-country travel. Many BLM and FS offices have begun or completed site-specific planning. Efforts include the Elkhorn and Little Belt Mountains on the Helena National Forest and Butte Field Office, portions of the Lewis and Clark National Forest and the Whitetail-Pipestone area

on the Beaverhead-Deerlodge National Forest and Butte Field Office, and certain areas in the Miles City and Lewistown Field Offices. This EIS and plan amendment would not affect those site-specific plans. For additional information, see Response A1.

A65 **Comment:** The DEIS ignores existing federal regulations (CFR 261 and 295) designed to minimize effects of off-road motorized travel. It is unacceptable that the FS would allow use to continue on user created routes in conflict with CFR 295. The regulations are clearly designed to protect wildlife and non-motorized users from conflicts with off-road vehicles.

Response: The BLM and FS have a number of authorities that allow them to manage OHV's and user-created roads and trails. For the FS, constructing, placing or maintaining any kind of road or trail is prohibited without a special use permit (36 CFR 261). In areas that allow motorized wheeled cross-country travel, the creation of trails through repeated use is not considered criminal or willful unless construction or maintenance activities are occurring. For additional information see Response A26.

There are three categories for the designation of NFS lands for specific types of off-road vehicle use: open, restricted, or closed. On NFS lands, the continuing land management planning process is used to allow, restrict, or prohibit use by specific vehicle types off roads (36 CFR 295.2(a)). This EIS and plan amendment is the process to amend forest plans to change the designation of areas currently open to a restricted designation.

The FS regulations (36 CFR 295.2 and 295.5) allow for area, road or trail closures where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, threatened or endangered species, other authorized uses, or other resources. The authorized officer can immediately close the areas affected until the effects are eliminated and measures are implemented to prevent future recurrence.

A66 **Comment:** Because of your persistent insistence to allow continued motorized use of illegal trails, I feel I have both the right and the responsibility to establish a record of my non-motorized use of these same public lands. How can I document my consistent prior use as a non-mechanize user of public lands and to have that documentation utilized in this analysis.

Response: The purpose of this EIS and plan amendment is to minimize future impacts from the increasing use of OHV's on areas that are currently available to motorized wheeled cross-country travel. Subsequent site-specific planning would address OHV use on individual roads and trails, providing for a range of motorized recreation opportunities. Through site-specific planning, issues involving other uses on roads and trails (hiking, horseback riding, mountain biking) could be addressed and specific limitations identified.

A67 **Comment:** In the draft summary of the OHV DEIS, it states that you can send your comments via e-mail. I disagree with this process. Large organizations can simply put people's names on the e-mails without permission. This will generate fraudulent comments. I feel that this method should not be allowed until technology is available to verify the authenticity of the e-mail.

Response: Public comments are not designed to be a voting process, but a way to look for the rationale behind comments making sure that all possible issues have been analyzed and potential alternatives identified for the decision-makers. Regardless of whether one or a thousand similar comments are received, if the comment is substantive, it will be addressed in the final document.

A68 **Comment:** Freedom of Information Act requests (FOIA) were denied and therefore we cannot adequately respond to how this plan affects multiple uses. Why was the FOIA denied?

Response: The FOIA referenced was received on January 13, 1999 from the Montanans for Multiple Use. The agencies did respond to this FOIA in letters dated February 5. The agencies' response was not a denial, it was a request for further clarification in order to answer the request efficiently and to determine if a fee waiver was appropriate. The concluding paragraph of the agencies' response letter states, "We will not proceed further with your request until we hear from you." The agencies did not receive any further clarification and therefore, did not pursue the request.

A69 **Comment:** Although federal law requires analysis and public involvement before OHV routes are established, the DEIS omits this step.

Response: This EIS and plan amendment does not establish OHV routes, rather it addresses areas that are currently open to motorized wheeled cross-country travel (see page 3 of the DEIS). In addition, the designation and establishment of OHV routes would be done at the local level through site-specific planning. Those designations would include and require public involvement per NEPA .

A70 **Comment:** We oppose this open house format for public input. It does not allow the full expression of group feelings of motorized users. We prefer a presentation with a dialogue between different viewpoints.

Response: As part of the agencies' public involvement process, there are various formats for dispersing information, entertaining dialogue between user groups and obtaining comments from the public. The agencies analyze the goals to be achieved with the public involvement process and then select the most effective format for the situation. Several formats have been used throughout this project, such as open houses, video presentations, one-on-one discussions, group presentations, brochures and website information.

ALTERNATIVES

B1 **Comment:** The current proposal allows for off-road use to collect firewood and Christmas trees. According to that exemption all a person has to do is pay five dollars for a firewood permit or Christmas tree permit and they have a right to go wherever they want with their ATV.

Response: Under the preferred alternative in the DEIS, motorized wheeled cross-country travel for firewood and Christmas tree cutting could be permitted at the local level. This exception does not allow for cross-country travel unless it is authorized at the local BLM field office or FS ranger district for specific areas and then under the terms and conditions of the permit. Normally, motorized wheeled cross-country travel would not be allowed unless it is located in an area of existing disturbance or a small area specific for cutting firewood or Christmas trees. The Preferred Alternative, Alternative 5 in the FEIS, includes a clarification that motorized wheeled cross-country travel for firewood and Christmas tree cutting could be allowed for those areas identified for such use.

B2 **Comment:** ATV's and bikes should not be used by our government workers on public lands. Their machines do just as much damage as any other machines. Do administrative vehicles cause less environmental damage than privately owned vehicles?

Response: Under the Preferred Alternative in the FEIS, motorized wheeled cross-country travel for the BLM and FS would be limited to official administrative business and only when required to accomplish such business. The agencies recognize the need to only drive cross-country under limited circumstances and when conditions are acceptable. However, there are certain activities that require driving motorized wheeled vehicles cross-country (e.g., prescribed fire, surveying, and weed control).

B3 **Comment:** You acknowledge that many uses contribute to the impacts being addressed, yet the DEIS gives only a nod to the on-going development of best management practices for all different forms of land management activities, let alone those specific to travel management. If this is a guideline for management implementation, as noted on page 10 of the DEIS, paragraph 1, where is the discussion of technical mitigation applications for each of the resource issues so that the public can understand what the measures are, other than trail and road closure, that might alleviate the various impacts?

Response: The reference to page 10 in the DEIS is to BLM and FS site-specific planning, which involves the analysis and implementation of management practices designed to achieve goals and objectives of the forest plan and resource management plan. This EIS and plan amendment is specific to the management of OHV's. A discussion of technical mitigation applications, or management practices, for other resources would be found in the respective resource management plan or forest plan. Normally, site-specific planning, such as a watershed plan or landscape analysis plan, would incorporate all management guidance for a specific area from the respective resource management plan or forest plan, including OHV restrictions. Appendix B in the FEIS provides additional information on implementation.

B4 **Comment:** The FS does not have enough manpower to enforce policies, restrictions won't be clearly communicated to users, and the FS will never have an accurate inventory of existing trails.

This will result: On June 1 (muddy season) an OHV can illegally make new trails and not get caught. On June 2 another individual can use the trail legally. The FS will never know whether it previously existed.

Response: Under the definition of motorized wheeled cross-country travel, clearly evident two-track and single-track routes must be established by the regular use and continuous passage of motorized vehicles. Routes must meet the definition for their continuous length. Routes newly created under wet conditions or in meadow and riparian areas should be easily identified as not meeting the definition because many portions of the route from its beginning to its terminus would not show signs of regular and continuous passage of motor vehicles and many areas would still be fully vegetated with no wheel depressions.

B5 **Comment:** The action alternatives would certainly not allow nature to begin to reclaim damaged areas as claimed on page 30 of the DEIS, because all or most damaged areas would become existing routes under your definition and would be further degraded by continued OHV use.

Response: This section of the EIS and plan amendment has been revised to clarify that under Alternatives 1, 2, and 5 there would be fewer additional user-created roads and trails than under the other alternatives, and most likely, there would be fewer roads and trails to reclaim than under the other alternatives. In addition, the BLM and FS regulations allow for road and trail closures where vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, T&E species, or other resources.

B6 **Comment:** In addition to needing access for emergency purposes, Montana-Dakota Utilities Co. requires access for routine inspections, maintenance and repair of its permitted facilities.

Response: Overall, under the preferred alternative in the DEIS, OHV designations would not limit vehicular access conducted according to the terms of an approved permit or other authorization. In addition, motorized wheeled cross-country travel would be allowed to administer a federal lease or permit, unless specifically prohibited in the lease or permit. Use of motorized wheeled vehicles cross-country for casual use, or outside of the permit, in areas limited or restricted would require permission by the authorized officer.

B7 **Comment:** In all alternatives studied, there is a need to further define "maintenance" (is it cutting one tree or ten) or "resource damage" (is it one foot of vegetation damage in a wet meadow or fifty).

Response: For the FS, under 36 CFR 261.10a, constructing, placing or maintaining any kind of road or trail is prohibited without a special use permit. To construct or maintain a road or trail on public land administered by the BLM requires a right-of-way or temporary use permit. Maintenance includes surface disturbing activities and/or the removal of vegetation. The BLM and FS have the authority to immediately close areas or trails if motorized wheeled vehicles traveling cross-country are causing considerable adverse effects to soil, water, wildlife, vegetation, or are causing user conflicts. This is determined on a case-by-case basis for specific areas.

B8 **Comment:** I am concerned that when the DEIS says "site-specific travel planning, or activity planning, will address OHV use on specific roads and trails" (Page i, paragraph 3 and again on page 3) and "will not change the currently limited/restricted yearlong or closed designations," you are, indeed, changing planning options. For example, in the recently completed Elkhorns Travel Plan, the Radersburg area under joint FS/BLM management, functions as an intensive OHV use area by virtue of its open area designation. It is not mentioned in the exemption on page 23. Will this action change how OHV riders can utilize that area? Perhaps there at least needs to be a candidate OHV area list, including places like Radersburg, Strawberry Hill, and others where extensive controversial OHV use is taking place.

I do not see the criteria for prioritizing planning, page 117 in the DEIS, as being useful if these areas should be more remotely located. Radersburg, for example, is hardly a high population center. By the same token, trail/area closures have occurred prior to implementation of this action or before landscape, or other analysis which did not seem to take into account OHV input. The option should remain open or revisit those decision during the course of plan revision, perhaps with some indication of a higher priority. For example, there are many smaller areas, such as Lacy Creek on the Beaverhead National Forest, where riders have asked for the consideration in the past, but no action has been taken. How will they be handled, in view of this action?

Response: This EIS and plan amendment would not change the current limited/restricted yearlong or closed area designations, or designated intensive off-road vehicle use areas. In addition, it would not change travel restrictions implemented in areas seasonally restricted. Under the Preferred Alternative, the BLM and FS would prohibit motorized wheeled cross-country travel yearlong in the analysis area. The FEIS would not affect the BLM intensive OHV use area (500 acres) near Radersburg, Montana nor the NFS lands (3,630 acres) involved in the Recreation Management Plan for the Lake Kookanusa drawdown area on the Kootenai National Forest. In addition, there are some isolated BLM lands (5,500 acres) that would remain open. These isolated lands were addressed in the 1995 Elkhorn Mountains Travel management Plan.

After the FEIS is completed, the BLM and FS would continue to develop site-specific plans with public involvement for geographical areas (i.e., landscape analysis, watershed plans, or activity plans). Through site-specific planning, roads and trails would be inventoried, mapped, analyzed, and designated as open, seasonally open, or closed. In addition, site-specific planning could identify areas for trail construction and/or improvement, or specific areas where intensive OHV use may be appropriate. There are currently six BLM intensive use areas in Montana: South Hills area near Billings, Glendive OHV area near Glendive, Terry OHV area near Terry, Glasgow OHV area near Glasgow, Fresno OHV area near Havre, and Radersburg OHV area near Radersburg.

B9 **Comment:** Our point is to remind you of our right of section line access to school trust lands that are surrounded by federal land. In the meetings we have attended, the FS has repeatedly confirmed its intent to allow us vehicular access to our state land. In keeping with these statements from the FS, we wish you to be aware that regardless of which plan alternative is finalized, we intend to maintain vehicular section line access to school trust lands for management and resource development purposes.

Response: The BLM and FS are required to provide such access as is adequate to secure to the landowner the reasonable use and enjoyment of nonfederally owned land that is completely surrounded or isolated by BLM or NFS lands. In determining adequate access, the BLM and FS have discretion to evaluate such things as proposed construction methods and location, to consider reasonable alternatives (trails, alternative routes, aerial access, and degree of development) and to establish such reasonable terms and conditions as are necessary to protect the public interest. Reasonable use and enjoyment need not necessarily require the highest degree of access, but rather could be some lesser degree of reasonable access. However, the BLM and FS must provide a degree of access that is commensurate with the reasonable use and enjoyment of the nonfederal land. For information on State Section Line Law and R.S. 2477, see Response A24.

B10 **Comment:** The EIS should consider rotational use of the land for cross-country travel. Then areas will have a chance to heal.

Response: Alternative 4 with seasonal restrictions has the intent of minimizing damage and the subsequent need for time to heal, by restricting use to times when impacts to soil and vegetation would be minimal and thus able to recover. Rotational use would be very difficult to administer as the areas where people could or could not travel cross-country would be constantly changing. This would require continually changing maps, signs and other forms of communication so people could stay current. This would likely lead to management and enforcement problems.

B11 **Comment:** There were many comments that suggested minor changes to the alternatives presented, often combining parts of other alternatives with the one they preferred. The following are the types of suggestions made: a) Restrict camping in Alternative 2 to 100' or 50'; b) Expand camping buffer to 600'; c) Disallow game retrieval in Alternative 2; d) Restrict game retrieval to the hours of 10:00 a.m. to 2:00 p.m. or noon to 3:00 p.m.; e) Allow game retrieval in the whole state of Montana; f) Allow game retrieval in the whole state of South Dakota; g) Close all motorized cross-country travel except on maintained roads and then establish "sacrifice areas" where OHV's can drive anywhere they want; h) Administrative use only with authorization from the manager; i) Ban the use of OHV's during hunting season; j) Eliminate the exception for firewood and Christmas tree gathering; k) Include the exception for disabled access in Alternative 1; l) No camping exception; m) Game retrieval should be accomplished without weapons along.

Response: The decision-makers may consider each of these options. The NEPA allows the deciding officer to consider combinations of alter-

natives and other possibilities that fall within the range of alternatives analyzed. This allows flexibility in choosing a preferred alternative for the FEIS without having to consider an endless list of possible combinations.

B12 **Comment:** There were suggestions for specific considerations in the alternatives: a) An alternative that would lead to an enhancement of future OHV use; b) An alternative that would apply restrictions to areas where documented problems exist; c) Restrict OHV use everywhere on public land and allow them after review is completed on a case-by-case basis.

Response: Each of these suggestions requires local site-specific information about the land, use patterns, overall management objectives, etc. This level of information cannot be appropriately analyzed for a 16 million-acre area. It does not fit with the broad programmatic change of land designation that is the purpose and scope of this project. The purpose is to "avoid future damage" from cross-country travel by OHV's rather than trying to resolve all the current problems. The alternatives suggested may be appropriate at the local site-specific level of planning described in Appendix B. The local level can deal with opportunities for enhancing OHV use, resolving existing problem areas and sorting out the appropriate distribution of various recreational users. (See Chapter 1, Background section of the FEIS, concerning the different levels of analysis and decision-making.)

B13 **Comment:** The statutory responsibilities of the North Dakota Game and Fish Department ex. law enforcement activities--routine and otherwise, necessitate access to the public lands. This should be expressly recognized in your final decision.

Response: The DEIS did not specifically address access by other agencies with needs for motorized wheeled cross-country travel. This omission has been corrected in Chapter 2, Alternative 5 (Preferred Alternative), of the FEIS. It recognizes that other government entities can get authorization from the local manager through the normal permitting process or memorandum of understanding.

B14 **Comment:** The range of alternatives is not reasonable. All the alternatives deal with closing more acres to OHV use. None deal with reducing the number of acres that are closed. It is very clear that a reasonable range is not all at one end of the scale. An alternative that uses travel plan information must also be analyzed in detail. Likewise, your reason for not studying an alternative to restrict OHV's to FS development roads and trails and BLM designated routes in detail is not rational. DEIS, page 9 states that, "this alternative would immediately close all of these roads and trails with very little quantitative analysis justifying the closure." I see no difference between this and the level of information in the DEIS.

Response: The range of alternatives developed must meet the purpose, need and issues of the proposal. Alternatives opening more acres to OHV cross-country use are not responsive to the purpose and need of the proposal. See Chapter 1 of the FEIS for purpose, need and proposal.

The use of travel plan information would involve site-specific planning not appropriate for this broad programmatic change. See the Chapter 1, Background section in the FEIS.

The portion you quote on page 9 of the DEIS was revised for the FEIS.

B15 **Comment:** The EIS states that "in the eastern portion of the analysis area, impacts from intensive motorized cross-country use are minimal, which suggests a low frequency of motorized cross country travel occurring in the eastern portion of the analysis area." (DEIS, page 25) If this comment is true, then either the no action alternative should be the best alternative for this area or the DEIS should be modified to exclude these lands from any of the proposed alternatives. In western Montana, the DEIS observes that OHV use is often regulated during the hunting season to minimize user conflicts. If this is true, then the DEIS fails to explain why yearlong closures are necessary in these areas if user conflicts and impacts to wildlife have already been mitigated by seasonal closures.

Response: The purpose of this EIS and plan amendment is to avoid future resource damage, user conflicts, and related problems by motorized wheeled cross-country travel. The trend of OHV use has increased substantially during the past decade and is expected to continue. To prevent areas with relatively low use and user impacts from sustaining negative effects they are included in some of the alternatives. The area in western Montana was excluded in Alternative 3.

B16 **Comment:** OHV roads and trails, and cross-country travel should be subject to emergency closures when conditions are such that such travel would be damaging to vegetation, roads, or trails, such as when very wet conditions prevail. OHV use of roads should be by management design to help achieve sometimes competing goals of access to lands, the need to disperse and control public use, biological needs of wildlife and sustaining vegetative and landscape attributes that make the lands interesting to the public. Such detailed management should be planned and periodically reviewed with public input.

Response: Local managers have the authority to use emergency closures to protect resources from very wet conditions, as well as other considerable adverse environmental effects (36 CFR 295.5 and 43 CFR 8341.2 and 8364.1). Forest plans and resource management plans, travel management plans and other site-specific plans accomplish your request, assess competing goals, involve the public and are periodically reviewed.

B17 **Comment:** I encourage you to call for (and apply) a more restrictive policy: ATV's should travel on roads only until adequate plans are made for wider use. ATV use should be restricted to established roads and trails with widths greater than forty-eight inches. We have a wonderful trail system built in the 1930's and improved since. Because it is only twenty-four inches wide, use by ATV's is (and will be) obviously destructive. Entry of ATV's into this system, if it is to occur, should await widening and re-engineering the trails.

Response: This analysis is dealing with areas that are open to motorized wheeled cross-country travel, not roads or trails, therefore your comment is outside the scope of this analysis. Designation of trails for certain types of users is dependent upon site-specific knowledge of design, soil type, location, etc. and will be dealt with at the local site-specific planning level.

B18 **Comment:** If ATV's are allowed to use trails they should be restricted to dry trails, perhaps with a published 'season,' i.e. they should be excluded in the spring and late fall. Forest Service managers have long recognized the damage done to native vegetation under wet conditions. Thus, cattle and sheep use have been restricted to the dry-soil season. Horses are sometimes restricted. Why should ATV's and motorcycles, which create linear, especially erosive tracks, be allowed to damage trails for the majority (non-ATV) user?

Response: This EIS and plan amendment addresses motorized wheeled cross-country travel. It does not address the timing and use of individual trails, which would be dealt with during local site-specific planning that takes into account, soil type, season of use, design and maintenance criteria, etc. Alternative 4 was designed with seasonal restrictions of motorized wheeled cross-country travel to avoid wet conditions that you have identified.

B19 **Comment:** The EIS should include the Montana State Lands Policy because it limits OHV's to designated roads and trails and better protects the environment than any of the alternatives proposed. OHV's have access to countless miles of roads and designated trails on NFS and BLM lands to drive on and should be prohibited from all other user-created trails.

Response: Montana law (77-1-804(6), MCA) gives the Land Board the authority to adopt rules governing the recreational use of state lands. It specifically states, "Motorized vehicle use by recreationists on state lands is restricted to federal, state and dedicated county roads and to those roads designated by the department to be open to motorized vehicle use." The Department of Natural Resources and Conservation has implemented this gradually over a number of years through their local offices, identifying and signing roads open or closed. The approach used has varied across the state based on what was determined to be most efficient. Generally in the western part of the state, it has meant leaving roads open unless posted closed. However, in much of the eastern portion of the state, roads are closed unless posted open.

The BLM and FS are pursuing a very similar process with this EIS and plan amendment. The first step is to restrict cross-country travel by OHV's with the second step at the local office level, to designate roads and trails for their appropriate use through site-specific planning. The endpoint of the process (designated routes), the use of local offices to achieve the endpoint, and the fact that it takes many years to reach the endpoint, are basically the same. One difference between the two approaches is the starting point. Montana law eliminated cross-country travel. The CFR's for the agencies did not; rather the regulations directed the agencies to identify areas to be open, closed, or restricted/limited to cross-country travel. The management plans developed in the 1980's for the agencies completed this step and desig-

nated many areas as open. This EIS and plan amendment would amend those plans to adjust our management based on the changed conditions during the past 10-15 years.

B20 **Comment:** Snowmobiles are a form of OHV and should be addressed in this project. They have many of the same negative effects on wildlife; they are noisy and create air pollution. I do not understand why these were excluded from the EIS.

Response: This proposal addresses motorized wheeled vehicles such as motorcycles, ATV's, four-wheel drive vehicles, etc. Addressing snowmobile use in this proposal would complicate and lengthen the EIS process significantly as described in the DEIS on page 17. Since snowmobiles are usually driven on a layer of snow, their environmental effects are different than those of motorized wheeled vehicles, which come into direct contact with the ground. User conflicts associated with snowmobiles are also different than those with motorized wheeled vehicles.

B21 **Comment:** I urge you to choose an alternative that restricts OHV's to designated roads and trails. Do not allow the use of user-created roads and trails, they should be closed and rehabilitated. NEPA requires consideration of a reasonable range of alternatives, it appears the "Forest Service development roads and trails and BLM designated routes" alternative better meets the purpose and need by better protecting the environment and other users, by restricting OHV use to roads and trails intended for their use.

Response: As described in Chapter 1, Background and Chapter 2, Alternatives Eliminated from Detailed Study, there are two levels of decision-making, the broad programmatic level, and the site-specific level. Individual road and trail designation involves the site-specific level. The decision-makers chose to keep this EIS and plan amendment focused on the programmatic level to deal with the designation of areas for use by OHV's. It is not feasible to do site-specific analysis for 16 million acres in a reasonable amount of time to meet the purpose of this EIS and plan amendment.

There are several facets to be addressed in this comment. One is the perception that any road or trail not on the FS system or BLM recreation map is user-created (see Chapter 1 discussion). Many of these roads and trails have been in place for many decades and were created by a whole range of various agency-authorized activities, including mining, fireline construction, logging, utility rights-of-way, and trails constructed by the agencies. Some of these have been abandoned for their original intent but have been used by recreationists since their establishment. These roads are unclassified in the new FS policy (36 CFR 212).

The FS system for tracking National Forest Development Roads and Trails was originally established to monitor construction, reconstruction and maintenance of government-funded roads and trails and to plan and report accomplishment of these tasks. These are referred to as classified roads in the new roads policy. Until recently, no efforts have been made to incorporate all of the NFS roads and trails into the inventory. As a result, the system of roads and trails may or may not reflect the majority of the roads and trails that actually exist on NFS lands. It depends on the forests being considered. In the steep, densely forested areas of western Montana, the system reflects most of the roads and trails; in central Montana, the Custer National Forest, North Dakota and South Dakota, the System reflects only a portion of them. The new FS roads policy directs the forests to develop a transportation atlas and identify the minimum road system needed for safe and efficient travel and for the administration, utilization and protection of FS lands. Unneeded roads will be decommissioned or converted to trails. The policy recognizes that this is a dynamic, ongoing process.

Currently, the BLM does not have a designated system. Through site-specific planning at the local level, roads and trails on BLM lands would be inventoried, mapped, analyzed, and designated as open, seasonally open, or closed.

B22 **Comment:** Consider adoption of a policy that roads and trails are closed unless posted open. In the DEIS this alternative was eliminated from detailed study. I don't understand why it would be a significant undertaking or why it doesn't meet the purpose and need?

Response: The purpose of this EIS and plan amendment is to deal with motorized wheeled cross-country travel. It is a programmatic decision document and is not designed to deal with site-specific choices of which roads or trails should or should not be open to various types of users. The "closed unless posted open" alternative deals

with the designation of roads and trails as closed; which is best addressed at the local level through site-specific planning. The purpose of this EIS and plan amendment is to limit/restrict areas that are currently open to motorized wheeled cross-country travel, not management of individual roads and trails.

Site-specific planning on a 16 million-acre analysis area would be a significant undertaking that would involve detailed inventory, mapping and analysis of BLM and NFS lands, and working with numerous local interest groups whose depth of knowledge and scope of interest would not necessarily extend to the entire analysis area, in order to achieve the goals and objectives of resource management plans and forest plans related to soil, watershed, wildlife, recreation, etc. This is better accomplished at the local level.

B23 **Comment:** Many commenters suggested the best way to approach OHV management was through site-specific analysis. There were three different approaches that brought people to a similar conclusion. a) There are many areas identified in the DEIS that receive little OHV use because of steepness and vegetation or very few users. If that is the case, why not deal with the problem areas on a site-specific basis that allows case-by-case evaluation and then mitigation? b) OHV's should be restricted to designated routes unless site-specific analysis indicates there won't be any effects on wildlife, other users, soil, water, etc. c) The EIS should address actions to restore damaged areas.

Response: This is a programmatic, broad scale decision being made with the purpose of avoiding future resource damage from motorized wheeled cross-country travel in areas currently designated open to cross-country travel. The trend of OHV use in the 1990's is increasing and is expected to continue to increase, resulting in more effects. The agencies recognize these effects are minimal in some of the analysis area and desire to keep them that way, thus preventing damage that may require expensive mitigation. That is the stated purpose of the project.

The desire for designation of routes and restoring damaged areas is an ongoing process at the local level where site-specific planning is appropriately accomplished. It is not the purpose of this programmatic EIS to solve these issues.

B24 **Comment:** A serious flaw of the DEIS is that it fails to comply with the NEPA requirement for complete analysis of a full range of alternatives. This failure is the result of eliminating from detailed study the alternative that would restrict OHV's to Forest Service development roads and BLM designated routes (page 9, DEIS). An EIS must describe and analyze alternatives to the proposed action. Indeed, the alternatives analysis section is the "heart of the environmental impact statement." The agency must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The reasons stated on page 9 for eliminating this alternative are not valid as described below:

1. Does not meet purpose and need. It does meet purpose and need. It would prevent further damage and preserve future options better than any of the current alternatives.

2. Analyzing FS system roads and trails would delay decision. This is not true, you do not need to analyze system roads and trails to make a decision on cross-country travel. The precise location of designated routes is readily available to the agencies and other use is cross-country, therefore effects can be determined without an inventory of user-created roads and trails.

3. Adequate data is not available to assess impacts of non-system roads and trails. Inadequate data or uncertainty does not relieve the agencies of their responsibility to estimate effects to comply with NEPA. It is not a basis for avoiding an alternative.

4. Roads and trails created through casual use are not considered illegal. - Not reasonable or logical under FS regulations since it violated the FS Code of Regulations (36 CFR 261.10). The correct interpretation is that they are illegal.

5. Analyzing restricting OHV's to FS system roads and trails is best done at the local level after nonsystem routes are closed.

6. Closing nonsystem routes is extremely impacting to OHV users due to state laws on licensing. This is not part of purpose and need. Not closing such routes is extremely impactive to the vast majority of forest users, as well as to the land and resources.

Response: There is a key point to understanding why a National Forest Development Roads and BLM designated routes alternative was eliminated from detailed analysis. On many forests the National Forest Development Road system does not represent the motorized travel system that exists. Many of these nonsystem (unclassified) roads and trails have been used administratively, by mineral claimants and permittees/lessees and are part of the transportation network serving necessary purposes. There are many roads that have been in place and used for many decades that are not part of the National Forest Development system. These roads were developed while conducting approved activities, often prior to the passage of NEPA, and still provide a useful function. See Chapter 2, Alternatives Eliminated from Detailed Study for discussion. For additional information, see Responses A15 and B21.

These unclassified roads cannot at this time be distinguished from user-created roads at a three-state level, nor can a determination be made on which should be added to the National Forest Development system. The new FS roads policy indicates the disposition of these roads will be determined at the local level after inventory and analysis has been completed with public participation. In situations where there are currently considerable adverse environmental effects, the local manager can close the roads immediately. In response to the 6 points:

1. It would meet part of the purpose and need, preventing further resource damage and it would not forego future options. However, it does not provide for timeliness, since the only way to determine what should be added to the forest development system would be to conduct the inventory, analysis and site-specific planning of existing roads. It is also not timely from the standpoint of designating routes on BLM lands. The designation process and implementation will take years to accomplish.

2. This point assumes that all motorized travel not occurring on FS system roads and trails is cross-country travel. Many of the nonsystem roads and trails were constructed, evidenced by a cut and fill, others may only be a two track but provide access for maintenance to water developments, fences, communication sites, etc. As stated above many of the unclassified roads were authorized in the past. It would take a site-specific analysis to determine which roads and trails should be added to the system (36 CFR 212). As described in chapter 1 of the FEIS, there are two levels of planning. This EIS and plan amendment is focused on the programmatic level. The system road and trail alternative is level two, site-specific planning.

3. The lack of data reference in the DEIS has been removed in the FEIS. The amount of data referred to is irrelevant. Uncertainty about roads and trails is not why this alternative was dropped from detailed consideration. The purpose of this EIS is a programmatic amendment of forest plans and resource management plans and change to the designation of areas to restrict/limit cross-country travel. Even if all the data were available today, this three-state EIS and plan amendment is the wrong scale to make the determination of which roads and trails should be open or closed. The new FS roads policy recognizes the existence of unclassified roads and the need to make decisions related to whether they are needed as part of the transportation system or whether they need to be decommissioned or converted to trails. The policy also recognizes this will be accomplished through a roads analysis and site-specific decision-making process. Therefore, it is inappropriate to include this alternative for detailed study.

4. The contention that casual use violates CFR 261.10 is incorrect. This CFR prohibits constructing, placing or maintaining any kind of road, trail, structure without a special-use permit. Casual use trails have not been constructed, placed or maintained. They are not considered illegal because these areas are currently open for cross-country travel. Repeated use over time may create a trail, but the use by those individuals is legal, it is not a criminal act. If such a trail is or will cause considerable adverse effects, the local manager can immediately close the trail (36 CFR 295.5).

5. You suggest analyzing restricting OHV's to FS system roads and trails is best done at the local level after routes are closed. The FS does not have a basis for closing all non-system roads and trails. The new FS roads policy directs the inventory and analysis of existing roads to determine which should be added to the system with the rest to be rehabilitated, a decision accomplished at the local level through a public process. This FEIS is programmatic in nature and deals with motorized wheeled cross-country travel, not roads and trails, whether system (classified) or non-system (unclassified).

6. The section where user-created trails and impact to those users is discussed on page 9 of the DEIS is background explanatory information and does not belong in that section. It has been removed.

B25 **Comment:** Use your (FS and BLM) travel maps to identify travel routes that OHV's would be restricted to using.

Response: This analysis is focused on motorized wheeled cross-country travel, not on different road and trail use options. In Chapter 1, Background, the two levels of decision-making for travel planning are described. This FEIS is a programmatic decision designating areas limited/restricted that are currently designated as open. Suggestions such as yours would be considered at the site-specific level, which would include detailed analysis of road and trail locations, soil information, specific wildlife habitat, etc.

B26 **Comment:** User-created trails, by definition, were not planned to be protective of environmental resources. This means that they could be impacting sensitive ecological areas, including wetlands, endangered species habitat, fragile soils and riparian areas. Under all proposed alternatives, the impacts associated with user-created roads and trails will continue and will likely worsen over time, making them incompatible with minimizing OHV impact. We understand that the purpose statement has been qualified to incorporate only restrictions on cross-country travel as a means for regulating the current OHV caused degradation. However, we feel that sufficient data has been presented in the DEIS to show that many existing routes also contribute to this impact.

Response: The local manager has the authority under current regulations (36 CFR 295.2 and 295.5,and 43 CFR 8341.2 and 8364.1) to immediately close any fragile or sensitive areas that are damaged or threatened with damage. These situations are site-specific and are best addressed at the local level. Existing route problems can be dealt with as just described and the long term solution, as described in Chapter 1, is the designation of routes through site-specific planning, which is ongoing and would be prioritized to minimize effects as described in Appendix B.

B27 **Comment:** The agencies have two basic options: they can use the currently existing travel plan rubric of closed areas with travel on a known designated trail system until additional trails can inventoried and analyzed, or they can allow continued motorized use on an unknown system that has never been analyzed for motorized use and is admittedly causing the resource damage this plan is intended to address. The first option addresses the resource damage prompting the DEIS, fits within the agencies' already established travel planning rubric and is quantifiable and known. The second option allows resource damage to continue, runs counter to current travel management, and allows the use of an unknown, unanalyzed route system that is admittedly causing resource damage. Unfortunately, the agencies have chosen the second option, refusing to even consider the first.

Response: The comment is based on three misunderstandings of the existing situation. First, the statement, "they can use the currently existing travel plan rubric of closed areas with travel on a known designated trail system" is incorrect. The EIS does not address currently 'closed areas.' The scope of the decision (page 4, DEIS) states, "lands affected by this proposal are those *lands open yearlong or seasonally* to motorized cross-country travel." (Emphasis added.) The Preferred Alternative would change the area designation to limited/restricted yearlong.

The second misunderstanding relates to 'travel on a known designated trail system.' The comment assumes travel is allowed only on this designated system. However, current travel management within the analysis area is open to motorized wheeled cross-country travel. There are many miles of trails and roads that have been in place for decades, used by the public, agency employees in the conduct of their duties, and by a variety of permitted activities, that are not part of the current road and trail system. Many of these roads and trails existed at the time the two agencies' management plans were adopted with the full expectation that the roads and trails would continue to be used after areas were identified as open or restricted. This EIS and plan amendment is changing the area designation where motorized wheeled cross-country travel is currently allowed. Site-specific planning would restrict motorized wheeled travel to roads and trails designated for that use.

The third misunderstanding is that this effort is a 'travel plan.' It is not a travel plan, rather it is an amendment to the land allocations of the agencies' resource management plans and forest plans that

eliminates unrestricted motorized wheeled cross-country travel. Site-specific planning will be the second level of the process that achieves the designation of motorized routes through site-specific analysis. See Chapter 1, Purpose and Need.

B28 **Comment:** Given the agencies' difficulties in managing OHV's the best solution is to follow the suggestions in the rulemaking petition filed by Wildlands Center for the Prevention of Roads and The Wilderness Society with the FS. Failing that, the agencies need to close all user-created trails until the impacts of motorized use on these trails can be analyzed on a site-specific basis.

Response: The rulemaking petition cited is beyond the scope of this analysis, since it requests the national office of the FS to write a regulation. That is beyond the authority of the Regional Forester and would not affect BLM lands. The closure of all user-created trails is not within the scope of this EIS, which deals with motorized wheeled cross-country travel, see Response B21. However ongoing and subsequent site-specific planning has, is and will continue to deal with road and trail issues related to OHV use.

B29 **Comment:** The rationale in the DEIS for eliminating any alternative which would close user-created trails rests on the agencies inability to analyze the impacts of such an alternative. Closing user-created trails clearly could only have a beneficial impact on the physical environment. NEPA does not even require an EIS for actions that preserve the physical environment.

In the case of the OHV plan amendment, the agencies are arguing that NEPA prohibits them from considering any alternative to close user-created routes. NEPA only requires that the agencies take a "hard look" at the impacts of actions that will adversely affect the environment. No such detailed analysis is required prior to actions that serve only to prevent human impacts upon natural resources. Indeed, were the agencies to limit all motorized travel to designated routes and motorized trails, they could do so without undertaking an environmental impact statement at all.

Response: This EIS and plan amendment would amend the 18 resource management plans and forest plans displayed in Table 1.1. An amendment to a resource management plan is made through an environmental assessment or an environmental impact statement (43 CFR 1610.5-5). A nonsignificant amendment to a forest plan must follow appropriate public notification and satisfactory completion of NEPA procedures (36 CFR 219.10(f)). An environmental assessment or an environmental impact statement must be prepared for a plan amendment which changes the designation of an area from "open" to "limited" or "restricted." The BLM and FS decided early on to prepare an EIS since the proposal would amend 18 plans and address a designation on 16 million acres.

An alternative considering forest development roads and trails and BLM designated routes was eliminated from detailed study because it does not meet the purpose and need of the proposal. The purpose and need of the proposal are to amend forest plan and resource management plan OHV area designations to preserve future options for travel management and provide timely interim direction that would prevent further resource damage, user conflicts, and related problems, including new user-created roads and trails, associated with cross-country OHV travel until subsequent site-specific planning is completed. As discussed in the DEIS under Alternatives Eliminated from Detailed Study, to meet the purpose and need of this proposal, the decision needs to be timely and the level of analysis needs to be commensurate with a broad level document of this type. Completion of a site-specific inventory would affect the timeliness of a decision and is not necessary in making a decision on area designations for public lands as open, restricted/limited or closed to motorized wheeled cross-country travel.

B30 **Comment:** The plan proposes restricting travel to designated routes and trails. I cannot support this when these routes have not yet been designated. If these routes are for public use and access they should lie solely on public lands, minimizing impacts and cost to private landowners. Lease holders need access off-road or trail in order to carry out administration of permit tasks.

Response: This FEIS only applies to public lands administered by the BLM and FS Northern Region in Montana, North Dakota and portions of South Dakota (excluding the Black Hills National Forest, Buffalo Gap Grassland and the Fort Pierre Grassland). Under the Preferred Alternative, the BLM and FS would restrict motorized wheeled cross-country travel yearlong on public lands. These lands would be designated limited or restricted yearlong. This FEIS would not designate

the routes and trails. After the plan amendment is completed, the BLM and FS would continue to develop travel management plans for geographical areas with public involvement. Through site-specific planning, roads and trails would be inventoried, mapped, analyzed, and designated as open, seasonally open, or closed.

Under the preferred alternative in the DEIS, motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would be allowed, unless specifically prohibited in the lease or permit. The Preferred Alternative (Alternative 5) in the FEIS clarifies that motorized wheeled cross-country travel would be limited to administration of a lease or permit (e.g., gas or electric utilities monitoring for safety conditions or maintenance; livestock permittees assessing vegetation conditions, fences, wells or pipelines). For additional information, please see Alternative 5 in Chapter 2 of the FEIS.

B31 **Comment:** Why doesn't the No Action Alternative have a number? Does this mean you are not even considering it as a viable option? If not, why not?

Response: The alternatives to current management, or No Action, were identified as Alternatives 1 to 4 in the DEIS. All alternatives, including the No Action, are reasonable options. As discussed on page 7 of the DEIS, the decision could be whether or not to implement restrictions as described in the alternatives or choose a modified alternative. A new alternative, Alternative 5, has been added to the FEIS. Alternative 5 is a modified alternative based on the public comments on the DEIS.

B32 **Comment:** You do not have any accurate numbers reflecting how many miles of trails were open to OHV use in 1965. You have never provided or analyzed or even counted the number of miles of these trails no longer available due to wilderness designation, study, or proposed wilderness, special study areas, research areas, administrative areas and administrative closures. Without accurately determining the extent of the previous closures and restrictions how can you see the adverse cumulative effects on motorized recreationists?

Response: The BLM and FS recognize that under any of the action alternatives (Alternatives 1-5) in the DEIS, lands would be added to public lands already closed to motorized wheeled cross-country travel in the three states. Current acreage restricted or closed to OHV's by field unit is displayed in Table 3.1 (page 24) of the DEIS. Cumulative effects for recreation are discussed on pages 29 and 30 of the DEIS. The FEIS has been revised to clarify the current restrictions on BLM and NFS lands.

B33 **Comment:** I believe if you want control of road vehicles it should be done with standards and guidelines for recreation. Since this was done with livestock, doing standards and guidelines for recreation would be more consistent with the multiple use concept of land management.

Response: The purpose of the EIS and plan amendment is to address motorized wheeled OHV travel on open areas that are currently available to motorized wheeled cross-country travel. The EIS and plan amendment is only addressing OHV use and not other recreation activities. Management of other recreation activities is provided for in current resource management plans and forest plans.

B34 **Comment:** We believe that in the long run, and sooner rather than later, OHV use on public lands should be restricted (with exceptions such as in Alternative 2) to designated routes. Will Alternative 2 accomplish this?

Response: All the alternatives would result in designated routes, through subsequent site-specific planning as stated in the long-term goal of this effort, Appendix B of the DEIS. The relationship of this programmatic plan to site-specific planning is found in Chapter 1, Chapter 2 in the presentation of alternatives, and Appendix B. Some site-specific planning is ongoing.

B35 **Comment:** Your preferred Alternative 2 in the DEIS is conflicting to itself under the different management areas and environmental issues shown in Table S.2. Examples: Areas open yearlong or seasonally: It states, "None." Prohibits cross-country travel: "Yes" but under several other listed uses it allows access and travel. How can it have no areas open yearlong or seasonally and at the same time say for specific uses it's okay?

Response: Alternative 2 prohibits general access for motorized wheeled OHV's traveling cross-country, but allows their use for some specific exceptions. These exceptions are described in Chapter 2 of the FEIS, Alternatives Considered in

Detail, and include such things as emergency purposes, official administrative business, retrieving big-game animals in certain geographic areas, lessees and permittees to administer leases and permits, and others.

B36 **Comment:** Of the Alternatives considered, the Preferred Alternative is by far the best choice. However, I believe the Preferred Alternative falls far short of protecting public land and allowing for intelligent use. The Preferred Alternative has no minimum standards for even the most basic resource protection. Is there no abuse considered too excessive or was this just a glaring oversight? At a minimum, the Preferred Alternative should: place a ceiling on road density (ATV roads included); specify a minimum amount of big game security; specify minimum standards that ensure soil and watershed protection; and address the spread of noxious weeds along motorized routes B perhaps licensing that includes a user fee for weed control.

Response: Many forest plans and resource management plans have standards and guidelines for protecting resources, such as road densities, not operating machinery in riparian zones, best management practices, etc. The standards and guidelines vary depending on the land allocation and the goals and objectives in the management plan. The purpose of the Preferred Alternative is avoiding future damage from motorized wheeled OHV's traveling cross country, it does not address specific problem areas or existing trail and road management. The current problem areas would be dealt with during site-specific planning. If there are areas currently receiving considerable adverse effects, the local manager has the authority to immediately restrict access (36 CFR 295.5 or 43 CFR 8341.2 and 8364.1). This EIS and plan amendment is dealing with motorized wheeled cross-country travel through area designations not the management of roads and trails. For these reasons, it is inappropriate for this FEIS to identify standards for road or trail management.

B37 **Comment:** With the adoption of Alternative "2" and its legalization of its entire new user-created roads and trails won't this create a monumental maintenance task for an already over-extended FS and BLM budget?

Response: None of the alternatives "legalize" user-created roads and trails. They are not illegal, since the areas are open to motorized wheeled cross-country travel. Repeated use in a location is not illegal. Sometimes it causes undesirable resource damage, which is part of the reason for this EIS and plan amendment; to avoid more of these types of trails.

The selection of any of the action alternatives would not create a monumental maintenance task because the "user-created" trails would not become part of the permanent transportation network through this decision. They would not be maintained and they would not be posted on the ground as part of the permanent transportation network or put on maps. Site-specific planning will review road and trail needs to meet recreation, administrative, permitted and other access needs with involvement of the public. One factor that local managers would take into account is the ability to maintain the system of roads and trails that do become designated for any type of use, whether motorized or nonmotorized.

B38 **Comment:** According to Helena District Ranger Dennis Hart: "Each year, new trails are being illegally constructed on NFS lands by a handful of forest users. These routes were never proposed, analyzed or identified for public input in compliance with the National Environmental Policy Act. Although public lands may be open to motorized recreation, federal regulations prohibit the unauthorized construction or maintenance of trails. Increasingly each year, new trail routes are being illegally constructed. In many cases, these trails have been built specifically to accommodate ATV's. Illegal trails are not recognized as a segment of the forest transportation system. Unauthorized trails on NFS lands often create serious management and resource conflicts. It's important to close the unauthorized trails before motorized use becomes established." A May 18, 1999 order issued by the Federal District Court in Missoula provides further guidance that the analysis in the DEIS is not lawful. The Swan View Coalition filed suit after the Flathead National Forest refused to close a user-created snowmobile/ORV trail in the Swan Range. The issue was settled and Federal District Judge Donald Molloy ordered the user-created ORV route closed and restored to its natural condition. Judge Molloy's order states that the closure shall be permanent unless the route is either fully restored to its previous natural condition or the agency conducts a site-specific analysis and determines that the route is legally established as part of the forest after providing for public participation in that

decision and after compliance with all applicable laws and regulations.

Response: Construction or maintenance of trails without prior approval on agency lands is prohibited (36 CFR 261.10 and 43 CFR 2801). Local managers have the authority and responsibility now, without this EIS and plan amendment, to address such violations when they are discovered. This activity is not part of the purpose of this EIS and plan amendment. It needs to be dealt with through the local BLM or FS office. See Chapter 1 for a discussion of the different levels of decisions related to travel planning.

B39 **Comment:** If Alternative 2 is adopted how much will permits cost and who will get them?

Response: There would not be a fee permit system for motorized wheeled cross-country travel. All such travel, except for the uses described in the Preferred Alternative would be prohibited. The reference in the FEIS to permittees is specific to individuals or companies that have permits for some type of approved activity, such as utility rights-of-way, livestock permits, various types of natural products collected for commercial production (mushrooms, beargrass, timber sales, etc.). The use of OHV's is controlled by conditions specified in their permit, so that effects from the use are mitigated.

B40 **Comment:** Alternative 3 looks illegal to me, because it would appear to legalize OHV use on the Kootenai, Flathead, and Bitterroot National Forests, where it is now illegal under current forest plans.

Response: Alternative 3 would not change current direction on those three national forests. Therefore, areas currently restricted as shown in Table 3.1 would stay restricted and those that are currently open would remain open. About 3.6 million acres in those three national forests are open seasonally or yearlong consistent with the forest plans.

B41 **Comment:** Alternative 3 is preferable of those presented, however, the camping should be given serious review to include language that when, for example improved campgrounds are available, no off-road camping is allowed, that results in new roads or trails within one mile radius of those developed campgrounds. Furthermore, outside of the "one mile radius" no new roads/campsites are allowed when existing sites reach a count of "three sites" within any one mile stretch of main road. The local administration should monitor the number of sites within the determined area and post it with signs that no new sites are to be created.

Response: This suggestion is outside the scope of this analysis since it deals with specific areas, numbers of sites and distances related to the location of specific developed recreation sites. It is something that could be very pertinent for some site-specific planning.

B42 **Comment:** On page 17 of the DEIS, 1st Col, exceptions 1. 2. 3. 4., this probably should say "best route" rather than "most direct route." Going over a steep bank or through a ditch or mud hole to go by direct route is a lot less desirable environmentally than going a few feet further to go around and avoid the problem.

Response: This is a good suggestion that has been incorporated into the FEIS in Chapter 2, Alternatives Considered in Detail, for the alternatives that include an exception for game retrieval. The wording is now "by the most direct route with least disturbance."

B43 **Comment:** The wording in Alternative 3 is incorrect. "Flathead, Kootenai, Bitterroot where problems do not occur or where existing regulations are adequate." There are well documented impacts on cultural sites on all those forests. Need to change wording to "where problems occur in limited areas."

Response: This is a good suggestion that has been incorporated into the FEIS in Chapter 2 describing Alternative 3. The new wording indicates, "where problems are limited because of steep terrain and dense vegetation or where existing..."

RECREATION

C1 **Comment:** You need to add wood gathering to the list of exceptions under Issues.

Response: Wood gathering has been added under the Issue section in Chapter 1 of the FEIS. Under the Preferred Alternative in the FEIS, motorized wheeled cross-country travel for personal use permits such as firewood cutting could be allowed at the local level in specific areas identified for such use.

C2 **Comment:** You need to address the displacement effect that closing or restricting public lands has on private lands.

Response: There is little or no anticipated effect on private lands and this has been added to Chapter 3, under Recreation, Environmental Consequences, Alternative 1 of the FEIS.

C3 **Comment:** You have unsubstantiated assumptions and how was the figure derived indicating that 1% of registered vehicles are used in cross-country situations?

Response: When quantifiable data is lacking sometimes assumptions based on field observations must be used in order to develop scenarios of possible effects. An example is where field observations of recreation specialists and law enforcement personnel were used to arrive at an estimate of motorized wheeled cross-country travel. This was combined with existing information available on the number of registered vehicles to get an idea of possible effects. Additional discussion has been added to the FEIS in Chapter 3, Economics section, Environmental Consequences. For further information see Response A35.

C4 **Comment:** You need to develop a long-range recreation/access and monitoring plan, one that tracks recreation opportunities lost and gained, and evaluates increased OHV traffic, including roadless areas and hunting opportunities, and work with recognized local groups to improve access and retain quality recreation experiences.

Response: Developing a comprehensive recreation and monitoring plan is outside the scope of this FEIS where the focus is avoiding future damage from motorized wheeled cross-country travel in areas currently designated as open. Long-range recreation/access and monitoring plans are usually completed at the forest plan and resource management plan level and, at times, during site-specific planning.

C5 **Comment:** Recreation planners should be providing for access to public lands with a good system of roads for standard highway vehicles with trailheads at many locations and with most of these maintained as open through the seasons. If this is done, the access part of the OHV argument can be countered, and the machines evaluated solely in terms of the real damage they do to resources and the very negative effect their noise and fumes have on other recreational users.

Response: Access needs and the associated road network and trailheads to meet these needs are addressed through site-specific planning.

C6 **Comment:** The DEIS fails to estimate future levels of OHV traffic under each alternative, fails to establish acceptable air pollution levels, fails to analyze how many miles of traditional foot and horse trails are likely to become motor vehicle trails, fails to analyze impacts on nonmotorized recreationists and their displacement from areas near unsanctioned motorized trails, and fails to mention the problem of lack of acceptable noise levels.

Response: The BLM and NFS lands affected by this proposal are those lands currently open seasonally or yearlong to motorized wheeled cross-country travel. Roads and trails within open areas, including hiking and horseback riding trails, are currently available for motorized travel. The environmental effects of each of the alternatives for recreation, including nonmotorized users, is addressed on pages 28 and 29 of the DEIS.

These are very important issues, many of which would be addressed during site-specific planning. This FEIS was not meant to be an all inclusive recreation analysis. The issues mentioned in this comment are all outside the scope of this FEIS where the focus is avoiding future resource damage and user conflicts from motorized wheeled cross-country travel in areas currently designated as open.

C7 **Comment:** There is no reference to the problem of noise where motorized and nonmotorized use mixes and mingles on roads and trails.

Response: The problem of noise is covered in the Recreation and Social sections of the DEIS on pages 22 and 35. Noise, related to mixed traffic on individual roads and trails, is outside the scope of this FEIS where the focus is on avoiding future damage and conflict from motorized wheeled cross-country travel.

C8 **Comment:** You may be in violation of federal laws governing access for disabled people by not allowing vehicular access. You need to comply with ADA (Americans with Disabilities Act).

Response: The BLM and FS must comply with the various laws that apply to people with disabilities. The Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973 address discrimination against disabled persons in employment, public services, public accommodations, communications, and in all programs, services, and activities provided by any federal agency. See Chapter 2, Management Common to All Alternatives and Chapter 3, Recreation, Environmental Consequences, Effects Common to All Alternatives sections in the FEIS for an expanded discussion.

C9 **Comment:** How are the special permits for people with disabilities going to be administered, who qualifies as a disabled person, what are the rules, what about assistants with the person, and how is game retrieval going to be handled?

Response: Each request will be evaluated at the field office or ranger district level on a case-by-case basis as specified by the Rehabilitation Act 1973. This is covered in Chapter 2, Management Common to all Alternatives and Chapter 3, Recreation, Environmental Consequences, Effects Common to All Alternatives in the FEIS.

C10 **Comment:** The combination of your existing route definition and an exemption corridor is terrible. At this point in time, virtually every dispersed recreation site accessible by present day vehicles is accessed by a track that would meet your definition for an existing route. By allowing travel on all of those, you obviate the need for an exemption corridor. By additionally providing an exemption corridor, you permit even more resource damage to occur as new, more powerful and competent vehicles are produced. Much of this resource damage will occur in riparian areas alongside the many roads that follow drainages some of the most valuable and already most degraded habitats on our public lands.

Response: Repeated use has resulted in routes to many popular campsites. However, in eastern Montana, public lands and use are dispersed enough that many sites do not have routes to them. The 300-foot exception would allow for this use to continue and would allow campers to be far enough off the road to reduce the effects of noise and dust. The BLM and FS have the authority to immediately close areas and trails if vehicles traveling off road are causing considerable adverse effects to riparian areas or streams.

C11 **Comment:** One problem I see with all of the last three alternatives, is the restriction of 300 feet for camping. I can show you numerous places in the Beaverhead National Forest where the existing campsites are well over 300 feet off the existing road. This restriction will put all campers camping on top of one another rather than dispersing out and using more of our public lands.

Response: The exception does not propose to restrict camping within 300 feet of a road or trail. Rather, it would set the maximum distance one may drive cross-country for camping. To camp farther than 300 feet from a road or trail, campers could park their vehicle up to 300 feet off the road, then transport their camping gear any distance they choose by nonmotorized means.

C12 **Comment:** I also am dismayed that Alternatives 2, 3 and 4 would permit cross-country travel for camping "within 300 feet of existing roads and trails." In essence, this could create 600-foot wide corridors for motorized use, which again I find totally unacceptable, even if the routes would be "the most direct" and selected "by nonmotorized use."

Response: Page 15 of the DEIS states that motorized cross-country travel for camping is by the most direct route after site selection by nonmotorized means. The terms "most direct route" and "site selection by nonmotorized means" were chosen to address the issue of cross-country travel under the guise of camping. The 300 feet allows campers to get away from the traffic and dust, affording more privacy (page 29, DEIS, Alternative 2).

C13 **Comment:** The exception for driving to a dispersed campsite should be applicable only when within 300 feet of an official road. The danger of the 300 foot and game retrieval allowances is that it sets in motion a pattern of abuse for two-track routes "established by regular use and continuous passage of motorized vehicles." This goes against the DEIS objective to "prevent further resource damage by eliminating expansion of motorized routes." Once 300 feet spur routes become established, motorized recreationists can very well construe the policy to mean another 300 feet and on and on ....

Response: It is not the intent of the agencies to allow this to occur. The BLM and FS have the authority to immediately close areas and trails if

vehicles traveling off road or trail are causing considerable adverse effects to soil, water, wildlife or vegetation, or are causing user conflicts. For additional information see pages 6 and 7 of the DEIS.

C14 **Comment:** Why are you allowing game retrieval in eastern and central Montana, but not in the west? Allowing big game retrieval "will cause problems" for eastern Montana; enforcement is impossible, erosion in steep country, damage to riparian and wetland areas, unfair advantage for OHV users, and allows virtually unrestricted use.

Response: Many factors were considered in deciding how to address big game retrieval throughout the three-state analysis area. Probably the most influential factor for proposing big game retrieval as an exception on BLM lands in central and eastern Montana was to be consistent with other public lands that allow big game retrieval. It is inconsistent and confusing to prohibit big game retrieval on some lands when it is allowed on other lands, both of which are managed by the same BLM office. Another factor that supported allowing big game retrieval in eastern Montana was a travel planning effort completed by the Eastern Montana Resource Advisory Council in 1998. This Council facilitated a public workgroup that developed travel management guidelines for BLM lands in the Miles City and Billings Field Offices. One of the guidelines allowed motorized wheeled cross-country travel for big game retrieval. Fewer hunters distributed over a larger geographic area and terrain also influenced the development of the alternative.

The FS in Montana has traditionally prohibited motorized wheeled cross-country travel for game retrieval on lands closed to motorized cross-country travel during the hunting season. This tradition in western Montana also influenced BLM's management practices as evidenced by past multi-agency travel plans where motorized cross-country game retrieval is not allowed where travel restrictions are in place.

Under the Preferred Alternative (Alternative 5) in the FEIS, motorized wheeled cross-country travel for big game retrieval would not be allowed although the use of roads and trails to retrieve big game could continue. This big game retrieval requirement would also apply to those areas covered by the BLM's Big Dry and Judith-Valley-Phillips resource management plans where motorized wheeled cross-country travel is currently allowed for big game retrieval. This game retrieval restriction would: reduce the conflicts between motorized and nonmotorized users during the hunting season; reduce the potential for introducing invasive weeds; reduce the potential for soil erosion; reduce the potential for impacts to wildlife; be more responsive to numerous public concerns that were expressed about the inappropriateness of allowing an exception for game retrieval; and be consistent with the long-term goal of using vehicles on designated routes. This would also provide a consistent policy across agency boundaries.

C15 **Comment:** The game retrieval concept allowed by the most direct route could be conducive to erosion in steep country or through wet meadows or riparian areas. Perhaps different wording is needed.

Response: One trip in and out is seldom enough of an impact to initiate erosion. The BLM and FS have the authority to immediately close areas or routes if vehicles driving cross-country are causing considerable adverse effects to soil, water, wildlife or vegetation.

C16 **Comment:** According to the EIS, closing areas to motorized wheeled cross-country travel should allow nature to reclaim damaged areas. How will the agencies ensure that such natural restoration will actually occur?

Response: The portions of Chapter 3 in the FEIS that refer to reclaiming damaged areas has been clarified to read, "... would allow damaged areas to revegetate.." To help natural restoration, the agencies would use a combination of signing, educational materials, monitoring, and enforcement.

C17 **Comment:** The agencies assume that in implementing the Preferred Alternative, game retrieval would occur primarily on existing roads and trails and that hunters would not hunt cross-country. Yet Page 22 notes that hunters drive or chase game cross-country to get a better shot. And Page 63 notes that motorized travel has led to unethical sportsmanship, with hunters taking flock shots at long ranges with disastrous results and crippling losses; and that a one-time game retrieval opportunity would be enforceable. But how would game retrieval restrictions be enforced? Page 38 of the DEIS itself notes that enforcement could continue to be a problem.

Response: Pages 22 and 63 of the DEIS provide information on activities that occur under an open designation where vehicles are allowed to travel cross-country. Under the Preferred Alternative, hunters would not be allowed to drive cross-country to hunt or scout game. Page 38 of the DEIS is not providing an agency opinion on enforcement. This section presented an opinion on some of the comments the agencies received. In addition to agency law enforcement personnel, the BLM and FS have a cooperative agreement with the State of Montana that authorizes Montana Fish, Wildlife and Parks law enforcement personnel to assist the federal agencies in enforcing travel restrictions during hunting season in Montana.

C18 **Comment:** The State of Montana reports that 22 percent of Montana households have registered recreational OHV's, including snowmobiles. The FS reports that a significant majority of nonmotorized trail users say, in surveys, that they avoid trails used by motorized users. Why do the FS and BLM propose alternatives that favor OHV users to the disadvantage of the majority?

Response: The agencies are not favoring one use over another. Executive Orders and regulations require the agencies to designate areas open, limited/restricted or closed to off-road vehicle use. Once the area designations are completed the agencies would move to the next step, which is site-specific planning. During this process, issues related to motorized travel on roads and trails, and balancing this use with other uses and resources will be addressed.

C19 **Comment:** I believe that the purpose of the study, to address only OHV access, addresses the wrong issue. The proper issue that should be addressed is to develop a plan that provides for beneficial use by the majority of existing and potential users while preserving, so far as practical, the existing environment. To develop an objective plan for beneficial use by the majority of potential users (not just the few "preservationists," existing cattle ranchers and outfitters), an objective study that addresses all uses with quantitative analysis must be performed. That study will support the conclusions with quantitative (analytic) data rather than unsupported assertions.

Response: This comment suggests the same process the agencies intend to follow after this FEIS is completed as described under Scope of Analysis in Chapter 1. Once the area designations are completed through this FEIS, the agencies would move to site-specific planning, which involves inventory, mapping and designation of roads and trails. At that time, integration of other resource objectives and recreation use could be incorporated. This process would include extensive public involvement and additional NEPA analysis, which would be more site-specific and quantitative.

C20 **Comment:** Planning should be based on examination of all existing roads and trails, most of which have developed through traditional uses that reflect a broad range of multiple uses important to Montanans and others who visit the State to recreate. In looking at existing roads and trails, the draft analysis needs to be expanded in scope to include other recreational uses, especially the impacts of horses and mountain bicycles. While the purpose of the DEIS was intended to address impacts of wheeled vehicles, the findings to date apply to all users. We support a policy of coexistence and tolerance of a variety of uses, including motorized recreation, on our public lands. Actual user conflict continues to be overstated by some of those who evidently would like to severely limit opportunities for motorized recreation, rather than working to assure equal access. We urge the recognition of the need to maintain existing motorized recreation opportunities and adoption of a policy of all multiple users sharing our public lands.

Response: As described in Chapter 1 under Purpose and Need, this FEIS is only addressing motorized wheeled cross-country travel. Use of roads and trails and other recreation activities would be addressed in subsequent site-specific planning.

C21 **Comment:** Clearly, a competitive mountain biker aggressively riding his or her bike on a single-track trail, in the national forest is not seeking a "quiet type recreation experience." The same is arguably true for the equestrian using public lands to practice the sport of endurance riding. Although some hikers and hunters are bothered by OHV use, others are not. The EIS makes no effect to differentiate regarding the scope of the conflict problem or the effect of any of the proposed alternatives on OHV or non-OHV use.

Response: This EIS is a programmatic document and the analysis needs to be commensurate with

the scope. Subsequent site-specific planning efforts would provide opportunities to address other recreation uses. For additional information, see Scope of Analysis in Chapter 1.

C22 **Comment:** The only time I see a real problem with off-road use is during the hunting season (Sept. 1-Nov. 31). I feel with a seasonal closure of off-road travel there would be fewer user conflicts.

Response: The BLM and FS recognize that in many areas, issues related to motorized use occur primarily during the hunting season. The alternatives offer a range of restrictions during the hunting season. Specifically, Alternative 4 proposes seasonal restrictions that addresses use during the hunting season. See Chapter 2, Alternatives Considered in Detail of the FEIS.

C23 **Comment:** The FS and BLM are trying to overplay the user conflicts. Conflicts aren't that common. Such a small percentage of users are motorized. You don't have a legitimate problem. There has not been a conflict between users; none have shown up in the open houses or documents.

Response: The comments received during scoping and on the DEIS indicate there are user conflicts. See Chapter 4 of the FEIS, Summary of Public Comments on the DEIS.

C24 **Comment:** The document states that: "Minimizing motorized cross-country travel would reduce the number and intensity of conflicts between motorized and nonmotorized recreationists." This statement is repeated over and over in one form or another and highlights a major flaw in this DEIS. It is biased in favor of nonmotorized recreation. Why should motorized users bear the brunt of reducing conflicts? An unbiased approach would propose establishing equally large areas for the exclusive use of motorized recreationists. Other areas of concerns are also impacted by nonmotorized users but only motorized use is being restricted.

Response: This FEIS is not about setting aside areas for any particular type of recreation activity. The focus is on motorized wheeled cross-country travel and minimizing further problems associated with that use. After completion of the FEIS, site-specific planning at the local level would provide opportunities to address balancing the needs of motorized and nonmotorized users, including opportunities to establish intensive OHV use areas. EO's and regulations speak directly to restricting OHV use to minimize conflicts.

C25 **Comment:** While identifying user conflicts as one of the primary reasons for developing the plan, the preferred alternative could actually exacerbate the problem. The DEIS suggests that under the preferred alternative "user conflicts would be substantially reduced," yet fails to consider that OHV's would be restricted to legal and illegally constructed trails, the very trails that most public land backpackers, hiking families, llama packers, horseback riders, nonmotorized guides and outfitters, Elder hostel groups and other "tranquility seeking" public land visitors use to access our public lands. Therefore, the amount of user conflict is likely to increase under the preferred alternative.

Response: The agencies' assumption was that most motorized users who drive cross-country would shift their use to roads and trails. The Definition of Motorized Wheeled Cross-Country Travel in Chapter 2 defines routes where motorized use would and would not be allowed. Generally, most of the motorized use on public lands is on roads and trails. Because motorized wheeled cross-country travel is a small amount of the overall motorized activities on public lands, a shift in use from cross-country to on-road/trail should not substantially increase motorized use on existing roads and trails.

C26 **Comment:** The EIS asserts that there has been an increase in user conflicts commensurate with the increase in OHV usage. A conflict is defined as an activity that "reduces the recreation use of another user." No statistics are provided in the EIS to show how user conflicts have increased as a consequence of OHV use. No statistics are provided to show whether the increase in user conflicts is attributable to an increase in OHV use, or attributable to increases in other forms of recreational usage such as mountain biking, horseback riding, or hiking. The EIS does not provide any information regarding whether an increase in user conflicts is either directly or indirectly related to an increase in OHV use. In addition, the EIS fails to describe how conflicts will be remedied as a consequence of any of the proposed alternatives. The EIS fails to analyze whether its definition of user conflicts is relevant or meaningful. The EIS fails to analyze whether the foregoing "conflicts" rise to such a level of importance that people

experiencing the conflict would choose to have either mountain biking, hiking, or equestrian activity discontinued simply because their recreational activities were reduced. The assumption of the EIS is that recreational activities must be terminated if a user's recreation experience is "reduced," even though the user may not wish to curtail other users' activities. Clearly, conflicts exist between mountain bikers, equestrians, hikers, and motorized users. The question is whether these recreational activities should be curtailed because of conflict. The EIS makes claim that "most known nonmotorized recreationists are usually seeking quiet type experiences and feel the noise, exhaust fumes, and wheel tracks left behind from motorized cross-country travel conflict with and reduce the quiet, more primitive recreation experience they are seeking." (DEIS, page 22)

Response: This FEIS does not propose to eliminate recreating with OHV's. The analysis in Chapter 3 concludes no recreation activities would be eliminated, but opportunities to drive cross-country would be eliminated. This would not preclude OHV use as an activity, as there are many miles of roads and trails open to this use. The FEIS also explains in Chapter 1, Scope of Analysis in Chapter 1 that during site-specific planning there would be opportunities to identify areas where intensive OHV use is appropriate.

Comments on the shortcomings of the FEIS with respect to analyzing user conflicts are relevant at the site-specific planning level. To include such an analysis would require gathering information on all uses and analyzing impacts of motorized travel on roads and trails as well as cross-country. As explained in Chapter 1, the purpose of this FEIS is to address motorized wheeled cross-country travel. Road/trail use would be addressed in site-specific planning at the local level that includes public involvement. EO's and regulations specifically address restricting OHV use to minimize conflicts.

C27 **Comment:** Privately owned lands in Montana are now becoming less available for public recreation. This fact, in combination with the restrictions embodied in all of the alternatives, will force the public to use any remaining open areas intensively. You need to recognize this possibility and include in your proposal the designation of areas managed specifically for intensive off-highway use. This would address some of the needs or preferences identified by persons living in nearby communities.

Response: The agencies recognize that there would likely be a need to provide additional intensive OHV opportunities. Consideration was given to addressing these opportunities in the DEIS. However, these opportunities are more tied to local needs and are more appropriately addressed during site-specific planning. See page 4 of the DEIS under Scope of Analysis.

C28 **Comment:** The DEIS does not consider the impact on recreational opportunities for aging recreationists. The only consideration is addressed in Alternative 4.

Response: The DEIS and FEIS discuss the effects to aging or older recreationists for each alternative in the Social section of Chapter 3.

C29 **Comment:** In Table S.2, under Social Issues, you have a category entitled Aging Recreationists. Who is representing and defining this group? I resent this categorization. Perhaps "physically handicapped or unfit" might be a little more accurate, inclusive and somewhat less offensive. I am 64 years of age, have knees totally worn out of cartilage, which I guess would make me aging and impaired. I feel a personal loss of freedom, opportunity and esthetic pleasure anywhere OHV's infringe on my public land experience. Where is my identified environmental issue?

Response: Conflicts between motorized and nonmotorized recreationists and the effects on nonmotorized recreationists are discussed extensively in both the Recreation and Social sections. The Social section has been revised in the FEIS to reflect the concerns about personal loss of freedom. These sections apply to persons of all ages.

The term "older" recreationist has been substituted for "aging" recreationist in the FEIS. This term is used in the context of recreationists who are getting older and are less able to participate in the more demanding activities that they did when they were younger.

Table S.2 Summary of Environmental Consequences in the DEIS, which discusses aging recreationists, has been revised in the FEIS. The text in the Social sections of both the DEIS and FEIS indicates there is no clear evidence that recreationists will switch to OHV activities as they become older and less able to participate in more demanding activities.

C30 **Comment:** People of the mind to use OHV's have likely always been of the mind to use OHV's; few, if any, make the transformation to being an OHV user because of increasing age. You provide no demographic information to support the contention that a significant or disproportionate percentage of the elderly utilize ATV's or motorcycles to access Montana's backcountry. In the final EIS I assume you will either provide some statistical data to indicate that off-road motorists constitute a significant and disproportionate percentage of Montana's aged population, or acknowledge that this is a nonissue fabricated by OHV organizations. Your acknowledgment on page 35 that we don't really know what changes in recreational pursuits are caused by aging should inform your analysis of this issue. By including this category in the list of identified issues-and concluding that there would be some particular impact on the aged you gave this contention a false legitimacy. Either drop it from the final EIS, or include a category of impacts on young and middle-aged recreationists. In this category I'll expect you to consider any reduction in nonmotorized recreation areas (and every expansion of motorized areas and routes results in a reduction in nonmotorized area) as negatively affecting the young and middle-aged. After all, if the aged make up a disproportionate number of those who drive on public lands, by definition the more youthful make up a disproportionate number of those who do not.

Response: The recreation discussion in the Social section of Chapter 3 includes all ages, except where a specific age group is mentioned. The older population is discussed separately because this is a growing population and concern about this population was raised during the scoping process.

Table S.2 Summary of Environmental Consequences in the DEIS, which discusses aging recreationists, has been revised in the FEIS. The text in the Social sections of both the DEIS and FEIS indicates there is no clear evidence that recreationists will switch to OHV activities as they become older and less able to participate in more demanding activities.

Information from the Montana Trail Users Study about the average age of different types of recreation participants has been added to the document. This information indicates the average age of adult participants was concentrated in the late 30's and early 40's for both motorized and nonmotorized activities with very little difference between the two types of activities. The oldest group was walkers with an average age of 45.

C31 **Comment:** Every person, from the day of his/her birth is "aging." If you mean "older," then I would like to see some data on which age classes actually travel cross-country.

Response: The term "older" recreationist has been substituted for "aging" recreationist in the FEIS. This term is used in the context of recreationists who are getting older and are less able to participate in the more demanding activities that they did when they were younger.

Information from the Montana Trail Users Study about the average age of different types of recreation participants has been added to the document. This information indicates the average age of adult participants was concentrated in the late 30's and early 40's for both motorized and nonmotorized activities with very little difference between the two types of activities. The oldest group was walkers with an average age of 45.

ROADS AND TRAILS

D1 **Comment:** You need to designate roads and trails where motorized use is allowed, specify the type of vehicle permitted, map existing roads and trails, and involve the public.

Response: The mapping and designating of roads and trails would be determined through site-specific planning at the local level, with public involvement. See discussion on pages 3 and 4, Purpose and Need, pages 11 and 12, Management Common To All Alternatives, and Appendix B of the DEIS.

D2 **Comment:** Nowhere did you address increasing the trail inventory to compensate for the loss of public land currently available for OHV use.

Response: The amount of trail needed as part of the permanent transportation system would be determined through site-specific planning.

D3 **Comment:** Develop a more extensive assessment of the effects OHV's may have in the Great Plains environment. Are they a major contributor to the expansion of noxious weeds? Is OHV traffic causing a proliferation of new trails? Page 60 of the DEIS indicates many of the pioneered roads and trails were started and developed in the hunt-

ing season. We do not believe the data is sufficient to reach this conclusion in North Dakota.

Response: This is a broad assessment covering several diverse ecological regions. Reports from BLM and FS offices indicate that the Purpose and Need covered in Chapter 1 applies to BLM and NFS lands in the Great Plains. Field units report that OHV's traveling cross-country do presently or have the potential to spread noxious weeds, cause erosion, damage cultural sites, create user conflicts, and disrupt wildlife and damage wildlife habitat in the Great Plains. The part referred to about pioneered roads and trails being started and developed in the hunting season was out of place and has been moved in the FEIS to the Rocky Mountain Region.

D4 **Comment:** Are roads and trails that are clearly visible on the ground, but not shown on a map considered "existing routes"?

Response: Yes, if a route is visibly evident on the ground and physically meets the definition discussed in Chapter 2 but does not show on a map, it is an existing route. Many roads and trails do not show on agency maps, including some FS "system" roads.

D5 **Comment:** The definition is too vague, confusing, flawed, difficult to enforce, and needs to be rewritten. There is no clear distinction between livestock, game, and approved trails.

Response: The definition has been rewritten in Chapter 2 of the FEIS.

D6 **Comment:** How are the agencies going to proceed with quantifying recreation use in order to make value judgments on BLM lands and how are they going to equate this with FS procedures? This plan should put forward guidelines regarding what will be considered a "trail" and how decisions on the kind of uses allowed on trails will be made.

Response: Determining recreation use and making value judgments for site-specific roads and trails are outside the scope of this FEIS. The BLM and FS will continue to work together for travel management consistency between agencies.

D7 **Comment:** The Public Lands Access Association has taken legal action to open nonsystem routes in the name of the public. Had they been system roads, the FS would have challenged their closures. A qualifier must be added to keep open all existing routes, available for public use, that serve as important access to and within national forests.

Response: No existing routes are being closed with this proposal. All existing routes are being held in a status quo situation until site-specific planning and analysis, which includes public involvement, is completed. Site-specific planning and analysis would determine the permanent transportation system.

D8 **Comment:** On page six of the DEIS, there is a discussion about the status of user-created roads and trails. The DEIS indicates that both FS and BLM regulations prohibit the construction or maintenance of roads and trails without a permit. The DEIS does not define what constitutes construction or maintenance other than stating that roads or trails which have developed through repeated use are not considered to be constructed. If these types of facilities are not closed to use by this DEIS decision, do the agencies plan to provide regular maintenance for them until their status is decided by site-specific analysis? If not, will maintenance of these facilities by the public be done in violation of agency regulations?

Response: No, the agencies are not planning to put these routes on a maintenance schedule through this EIS and plan amendment. However, this does not preclude public land users from providing the agencies information on maintenance needs nor does it preclude the agencies from performing maintenance on a route, especially where public health or safety is concerned, or closing the trail for safety where considerable adverse environmental effects are occurring.

As implied in the comment, maintenance performed without agency authorization is a violation of federal regulations.

D9 **Comment:** The EIS also states that no new user-created roads or trails could be established. It is difficult to understand why user-created roads and trails that have been developed in the past are OK, but it is not acceptable for new ones to be developed. If new ones are bad, why are old ones acceptable?

Response: The BLM and FS are not proposing to validate any existing user-created roads or trails through this EIS. Road and trail decisions would be made through subsequent site-specific plan-

ning. For further information, see Chapter 1, Purpose and Need, Appendix B of the FEIS and Responses to A59 and B37.

D10 **Comment:** This DEIS throughout makes the assumption that off-route travel is going to go more places. I suspect that just about every place that is reachable has already been ridden to. Can you substantiate that your assumption is correct?

Response: Monitoring of OHV travel at FS and BLM offices indicates that problems exist where unrestricted motorized wheeled cross-country travel is allowed, including new user-created roads. Numerous comments were received on the DEIS citing specific examples of newly created routes.

D11 **Comment:** A track defined by crushed vegetation (Figure 2.3) should not be acceptable since they would be easy to make after the plan is adopted.

Response: By the definition in the DEIS, two-track routes must be clearly evident and formed from regular use and continuous passage of motorized vehicles. Figure 2.3 in the DEIS depicts more than just crushed vegetation. This route has a definite profile (wheel depressions) caused by years of motorized use. Crushed vegetation by itself is considered cross-country travel and is not acceptable (Figure 2.1). The BLM and FS have the authority to immediately close areas and trails if motorized vehicles traveling cross-country are causing considerable adverse effects to soil, water, wildlife, vegetation, or are causing user conflicts. For additional information see pages 6 and 7 of the DEIS.

D12 **Comment:** How long will it take to map all the user-created roads and trails?

Response: Some inventory projects are in progress now. For additional information see Chapter 1, Issues, "How will site-specific problems be addressed soon enough with a 10-15 year window for completion of site-specific travel planning?" on page 6 in the DEIS and also Appendix B in the FEIS. The projection for completing site-specific planning is estimated to be between 1-15 years. During that period, the agencies have authority to close routes that are causing considerable adverse effects.

D13 **Comment:** Photos in the Summary illustrate inappropriate use of single and two-track trails. Yes, such uses are inappropriate; why aren't they illegal? The ATV shown on the single-track trail begins making it into a two-track trail, and then the pickup truck begins expanding that usage into a road. This escalation of user-created tracks and roads is part of our ever increasing problem.

Response: The term "inappropriate" has been deleted from the photo captions. The figures show what is and is not considered cross-country travel. Use of an ATV on a single track trail would be a citeable violation.

D14 **Comment:** The concern is that we will lose routes because of disuse. Trails that have come about from frequent use will become illegal if not traveled long enough so that vegetation overtakes it. This concern could actually result in an increase in motorized use. Those of us who are concerned about losing routes to disuse may feel compelled to travel them more frequently for no reason other than to keep it established.

Response: Your concerns need to be raised with the FS or BLM office that administers the area so that a record of use can be established before or during site-specific planning.

D15 **Comment:** Trails are also extremely difficult to follow where there is guided horse use. It seems they find it necessary to take a different route each time they pass. A lot of these "horse user" built trails end up going nowhere, so an OHV user will probably cut across country to try and pick up the real trail. If you are really concerned about user-built trails, you would be mostly addressing horse users in this DEIS. Go to any area that has much horse use and you will find two to a dozen, more or less parallel trails all braided together. I've seen these parallel trails even in wilderness. They often look just like an OHV track.

Response: This EIS is addressing motorized wheeled cross-country travel. Issues related to horse use should be addressed in site-specific planning or other comprehensive recreation planning for nonmotorized use.

WILDERNESS/ROADLESS AREAS

E1 **Comment:** You are legitimizing motorized roads and trails, including those created by casual use, within roadless areas and this is inconsistent with protecting wilderness values. The EIS offers no protection for the 3.4 million acres of roadless areas in the Crazy Mountains, Pintlers, Sapphires,

Gallatin, Bitterroot Range, Big Hole, Rocky Mountain Front, Continental Divide, Little Belts, Snowies, and Pryors.

Response: See pages 30 and 31 of the DEIS. No casual use created roads and trails are being legitimized with this proposal. All existing routes are being held in a status quo situation until site-specific planning is implemented. Site-specific planning and analysis would determine what roads and trails need to be part of the permanent transportation system. The proposal in the FEIS is about preventing further damage from motorized wheeled cross-country travel wherever it occurs. It is not specifically about protecting or restoring roadless area values. Current forest plan management direction did not prohibit motorized use in these roadless areas.

E2 **Comment:** The preferred alternative fails to comply with the BLM policy and regulations respecting the management of wilderness study areas.

Response: No motorized wheeled cross-country travel is allowed in BLM Wilderness Study Areas, and the BLM Wilderness Study Areas are not part of this FEIS. See the discussion in Affected Environment, Inventoried Roadless, Recommended Wilderness, and Wilderness Study Areas, page 30, DEIS.

E3 **Comment:** It is not clear whether the exceptions to restrict motorized cross-country travel also apply to roadless, recommended wilderness, and wilderness study areas.

Response: The exceptions to restrictions do apply if the current forest plan or resource management plan allows motorized use. This is now stated in Chapter 3, Inventoried Roadless, Recommended Wilderness, and Wilderness Study, Environmental Consequences section of the FEIS.

E4 **Comment:** The DEIS fails to qualify and analyze how many acres of roadless, wild and natural public land areas exist today in Montana and the Dakotas, how many are accessible by trails, and what are the long-term effects of increasing and expanding off-road vehicle traffic on natural experiences and wildland characteristics.

Response: This is outside the scope of this FEIS. These questions are most appropriately covered in forest plans and in site-specific planning. This FEIS is about avoiding future damage from motorized wheeled cross-country travel wherever it occurs and is not specifically about analyzing and protecting roadless areas and land with wildland characteristics.

COMMERCIAL

F1 **Comment:** Why should lease and permit holders get unrestricted access when others do not. Management policy should preclude further damage caused by lease and permit holders. Lease and permit holders will have to do what is best for the resource.

Response: Lease and permit holders do not have unrestricted access; their access is limited to activities related to the administration of their federal lease or permit. Persons or corporations having such a permit or lease can perform administrative functions on public lands within the scope of the permit or lease. However, this would not preclude modifying permits or leases to limit motorized wheeled cross-country travel based on further site-specific analysis to meet resource management objectives or standards and guidelines. Under the Preferred Alternative of the FEIS, the following examples of activities related to the administration of a lease are given: for a gas or electric utility, these activities could include monitoring a utility corridor for safety conditions or maintenance; for a livestock permittee, these activities could include building fence, delivering salt and supplements, assessing vegetative conditions, moving livestock, etc. When driving cross-country, these lessees and permittees should avoid riparian areas, avoid steep slopes, wash vehicles after use in weed-infested areas, travel with care near wildlife, avoid areas with important wildlife habitat, and travel with care near cultural sites.

F2 **Comment:** It is crucial that permittees be allowed to travel cross-country to administer their leases. Otherwise, how will permittees be able to maintain fences, waterlines, etc? If permittees are not permitted to travel cross-country, this would create a real hardship. Regulations might be necessary, but it should be to correct problems that exist on a permit-by-permit basis.

Response: Under the Preferred Alternative of the DEIS and FEIS, lease and permit holders would be allowed to travel cross-country for activities related to the administration of their permit or lease. Persons or corporations having such a permit or

lease can perform administrative functions on public lands within the scope of the permit or lease. However, this would not preclude modifying permits or leases to limit motorized wheeled cross-country travel based on further site-specific analysis to meet resource management objectives or standards and guidelines.

F3 **Comment:** Pages 79-81 of the DEIS assess the environmental consequences associated with mineral development. This assessment is lacking in appropriate detail, particularly given the current projected future levels of oil and gas development on the National Grasslands in North Dakota.

Response: The purpose of this EIS and plan amendment is to address impacts of motorized wheeled cross-country vehicle travel in areas that are currently open to motorized travel. Pages 79-81 of the DEIS present how OHV designations may affect vehicular travel associated with mineral activities. Travel restrictions do not depend on projected levels of future oil and gas activity. Projections of future oil and gas developments are available in the Northern Little Missouri National Grassland Oil and Gas Leasing EIS and the Southern Little Missouri Oil and Gas Leasing EIS.

F4 **Comment:** Nowhere in this document is there a provision to allow a neighbor the right to retrieve a straying animal from a BLM allotment with the possible use of cross-country travel with an OHV. We strongly encourage language addressing this matter within the OHV EIS.

Response: Using an OHV cross-country to retrieve a straying animal from a BLM allotment would be allowed under use related to the administration of the lease or permit. In the absence of a permit or lease, the local BLM or FS office should be contacted.

F5 **Comment:** Many of us have signed long-term agreements in the form of Allotment Management Plans and are bound by these agreements. Recommend that lessee OHV travel (only while administering leases) be removed from this document and be addressed in the specific management plans for their lease or upon its next required renewal, and not tied to what basically amounts to a recreational use document.

Response: The purpose of this proposal is to address the impacts of motorized wheeled cross-country vehicle travel on open areas that are currently available for cross-country travel. When designations are done, all exceptions must be identified and, therefore, all types of use must be included. Under the Preferred Alternative of the FEIS, livestock permittees would be able to travel cross-country with a motorized vehicle to perform activities related to the administration of their lease. However, this would not preclude modifying permits or leases to limit motorized wheeled cross-country travel based on further site-specific analysis to meet resource management objectives or standards and guidelines.

F6 **Comment:** On page 36, column 2, first paragraph the DEIS states: "For all BLM permittees, permission to travel off-road for activities associated with the administration of their permit is implied rather that explicitly stated in the lease." Historically, BLM has recognized the permittee use of OHV's to administer their lease. Permittees need this to be guaranteed in writing, not implied.

Response: Livestock permittees do not currently have a guarantee that they can travel cross-country with a motorized vehicle to administer their lease. Under the Preferred Alternative of the FEIS, livestock permittees would continue to be able to travel cross-country with a motorized vehicle to perform activities related to the administration of their lease. However, this would not preclude modifying permits or leases to limit motorized wheeled cross-country travel based on further site-specific analysis to meet resource management objectives and standards and guidelines.

F7 **Comment:** I would like to see a provision that allows permittees the ability to use motorized cross-country travel to cross leases other than their own when conducting livestock business. As ranches have increased in size, the ranchers have not always been able to purchase land that adjoins their present holdings. In my case the headquarters are 30 miles away from my BLM leases. Then I have more land six miles further on. Between these lands lie other BLM lands that I have to cross with my cattle. At the present time we use ATV's and horses to trail between places. Other BLM permittees are in the same situation.

Response: Currently, permittees must get a crossing permit for their livestock to access other public lands. However, this issue is outside the scope of this document, which deals with motorized wheeled cross-country travel.

F8 **Comment:** We are against unrestricted OHV use by permittees because having no restriction on this type of use will create new OHV routes that can be legitimately followed by other OHV users. What restrictions on trails and road creation would permit holders be required to follow?

Response: Permittees currently do not have unrestricted use and would not have unrestricted use under the Preferred Alternative of the FEIS. Under the Preferred Alternative, motorized wheeled cross-country travel would be limited to activities related to the administration of the lease. When participating in these activities, the FEIS indicates permittees should avoid riparian areas and steep slopes. Following these guidelines would help to avoid creating new routes.

Restrictions on trail and road creation are discussed on page 6 of the DEIS and would remain the same. Trail and road construction or maintenance would require a right-of-way or temporary use permit.

F9 **Comment:** There is one concern of mine that I don't think was addressed in the EIS. Currently, the FS and BLM lease their lands to licensed outfitters for hunting purposes. These leases are often far cheaper than what private land leases are going for in the same areas. Outfitters who control access roads and trails to BLM and NFS lands can drive on these roads and trails into and on these accessible lands that the general public must walk into from legal access points. This is unacceptable and is surely going to lead to future sportsman/ outfitter conflicts. If the intent is to improve quality of recreation on public lands, then these roads and trails should be shut down to all unless all are allowed to use them. The Montana Department of Natural Resources has already addressed this situation on lands that they administer. I would like to encourage the FS and BLM to come up with a similar off-road use.

Response: This EIS is only addressing motorized wheeled cross-country travel. Improving access or improving the quality of recreation on public lands are issues addressed in agency land use plans. These issues are outside the scope of the analysis of this EIS, which is specific to motorized wheeled cross-country travel. For additional information, please refer to Chapter 1, Purpose and Need in the FEIS. The BLM and FS do not lease public lands for outfitter/guide operations, but authorize outfitter/guide use through special use permits.

SOCIAL

G1 **Comment:** Another reason to restrict OHV use is to preserve a historically and culturally significant style of hunting in Montana by using pack animals. If Mom and Dad use only OHV's instead of using pack stock, the next generation will never learn this style of hunting.

Response: The purpose of this project is to address the impacts of motorized wheeled vehicles traveling cross-country. It is not a comprehensive recreation plan. Discussing different types of hunting in detail is outside the scope of this analysis and could be addressed during site-specific planning.

G2 **Comment:** If roads are closed, further complications would develop, including loss of jobs and economic support to communities. We are also concerned about recreational opportunities on legal road systems and the inability to access areas to gather wood because of road closures.

Response: These comments are outside the scope of the analysis because this FEIS is not proposing road closures. The specific alternatives are discussed in Chapter 2 of the DEIS and FEIS. Economic impacts have been considered and are located in the Economic Section of Chapter 3 in the DEIS and FEIS.

G3 **Comment:** In your list of other issues (page ii) you persist in your mistaken notion and recitation that OHV travel restrictions might infringe on personal freedom. OHV's are certain to result in restrictions on things like hunting opportunity for the majority of sportsmen and women. The quality of hunting has been degraded from additional OHV use and new routes into previously nonmotorized areas. Fairness of opportunity is an important value to hunters. Unbalanced use occurs when OHV's cruise up and down a ridge while foot hunters are quietly using stealth to approach elk on the same mountain. You need to address the pedestrian hunter's personal freedom.

Response: The purpose of this project is to address the impacts of motorized wheeled cross-country travel. It is not a comprehensive recreation plan. Discussing different types of hunting in detail is outside the scope of this analysis. However, the document does discuss effects to hunting such as conflicts with OHV's in both the Recreation and Social sections of Chapter 3 in the FEIS.

G4 **Comment:** The DEIS should include additional evaluation of resource areas which support motorized recreational opportunities, including the number of people who benefit and enjoy (need); the importance of a healthy human environment (social and economic benefits); the equitable balance of opportunities (environmental justice); and the protection of local values and character, motorized recreationist's values and cultural diversity (cultural preservation).

Response: The issues raised in this comment are site-specific issues. This type of localized analysis would take place in site-specific travel planning. Many of the issues listed are discussed in the FEIS but at a more general level (see the Recreation and Economic sections in Chapter 3 and 4). For a clarification of environmental justice, see Response G8.

G5 **Comment:** Environmental Advocacy - We all are conservationists. However, most of the public are not extremists. I don't know why you cater to only this group. Your analysis addresses this group but no other group. However, since you include this group, you need to include other groups such as OHVers and the ranchers, loggers, and miners as well as the hunters and fishermen.

Response: In addition to the group you identify, the discussion in the Social section includes motorized and nonmotorized recreationists, ranchers/permittees, the general public and residents of rural communities. These groups were analyzed in Chapter 3 because they would be most affected by the proposal.

G6 **Comment:** In the summaries of the alternatives and elsewhere there is a category or group of people referred to as "environmental advocates." A clearer definition of this "group" is in order. There are many statements in the document that are not consistent with those who are educated in various areas of environmental management. Those inconsistencies need to be defined as opinion and not simply accepted as fact. If this grouping of "Environmental Advocates" are those who are the self-proclaimed special interest groups we are all too familiar with, it is a gross miscarriage of the truth to not define them as such in the documents. We are all concerned with the health and well being of our environment as well as its proper management. It is not for those of a particular opinion on how that management should be effected to "self-proclaim" their "Environmental Advocacy" status and that status be given credence by the BLM or FS in official documentation.

Response: As stated in the DEIS, the section on environmental advocacy groups is based on letters received during scoping from these groups and individuals with similar ideas. The ideas in the discussion are clearly labeled as concerns and opinions rather than facts. In addition to this advocacy group, the Social section discusses the concerns, opinions and ideas of motorized and nonmotorized recreationists, ranchers/permittees, the general public and residents of rural communities (see Chapter 3, Social section of the FEIS).

G7 **Comment:** A recent MSNBC poll asked the question, "Do you favor tighter restrictions on off-road vehicles in national park and forest areas?" 20% of the respondents favored tighter restrictions, 80% did not. A recent CNN poll asked the question, "Do you think that off-road vehicles should be banned from unpaved areas of natural forest land?" 15% said yes, 85% said no.

Response: The survey information that was included in the DEIS was collected by reputable research organizations using generally accepted data collection procedures to ensure that the information they collect is representative of the particular group they are surveying. The polls cited here, which collect data via the internet, are not scientific and reflect the opinions of only those internet users who have chosen to participate. The results cannot be assumed to represent the opinions of internet users in general, or the public as a whole.

G8 **Comment:** The disclaimer on Environmental Justice (page 39 DEIS) should be dropped in light of the fact that Alternative 1 provides no disabled access.

Response: The EO on environmental justice indicates federal agencies are required to address "disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations" (EO 12898). The disabled are not a minority population under this order. The disabled access discussion found in the DEIS has been changed. In the FEIS, disabled access will be allowed under each alternative, including Alternative 1, per the Rehabilitation Act of 1973 (see Chapter 2, Management Common to All Alternatives).

G9 **Comment:** The first paragraph of the statement under Cumulative Effects on page 39 should be stricken. It assumes long-term application with no further mitigation and that nonmotorized users have no other places to go. Even if nonmotorized opportunities decreased to zero due to increases in conflict with motorized users, they will still have trail opportunities in wilderness and other unroaded areas. The same cannot be said for motorized recreation.

Response: A sentence has been added to Chapter 3, Social, Cumulative Effects indicating that the loss of opportunities for nonmotorized users would also be offset by opportunities available in areas that have been closed to OHV use prior to this effort.

G10 **Comment:** You oughtn't believe all this rubbish about the OHVers being the "regular folk" and the quiet trails advocates being a bunch of elitist snobs. How many hikers need or are able to plunk down a cool $5000 to $8000 to enjoy their chosen form of recreation? The various "pay-to-play" Fee Demo plans and other private/public partnerships work fine for OHVers simply because they are the ones most able to afford such an arrangement. Please take a look and include in the FEIS the survey of backcountry users in Idaho (Duncan, David and Ralph Maughan, 1978 "'Feet vs. ORV's' Are there Social Differences Between Backcountry Users?" J. of Forestry, 76(8) pp 478-480) that found that OHVers averaged higher incomes and were younger than nonmotorized recreationists. Research elsewhere has found that vehicle-based campers and backcountry campers had no significant differences in income levels, though both were above average (Burch and Wenger, 1967, USDA-FS Res. Pap. PNW 48, 29 pp.; Merriam and Ammons, 1967, Univ. of MN School of Forestry, 54 pp.)

Response: The references cited in this comment are all at least 20 years old. These references were examined and determined to be too outdated to offer accurate information about the people who are currently participating in motorized and nonmotorized recreation activity. The agencies relied on an extensive literature search for more recent research. The research referenced in document can be found in the Bibliography.

ECONOMICS

H1 **Comment:** What are the economic effects to the three States, and specifically to the OHV industry?

Response: The job and income effects were estimated for each State for the years 2005 and 2015 (see page 46 of the DEIS). The estimated economic effects (jobs and income) have considered the OHV industry. Tables 3.8 and 3.9 in the DEIS have aggregated all industry-specific information to the state level to simplify the tables.

H2 **Comment:** There seems to be an error in the use of the ATV and motorcycle data when estimating vehicle use by vehicle type.

Response: The Montana ATV and motorcycle data was compiled by Montana Fish, Wildlife and Parks using Department of Justice, Title and Registration Bureau data, and had already been adjusted to reflect off-highway use (personal communication with Bob Walker 1999). Therefore, the aggregated Montana OHV and motorcycle data presented in Table 3.4 of the DEIS is comparable to the data reported for North Dakota and South Dakota.

H3 **Comment:** If game retrieval is not allowed, I will be forced to sell my ATV at a devalued price, a factor not considered in your economic analysis.

Response: The current economic impact analysis found in the DEIS addresses the situation described (see Table 3.9 on page 46 for estimated economic impacts). The economic impact analysis is based on the assumption that if this proposal is adopted, 1% of registered vehicles that currently participate in off-highway activities by traveling cross-country would discontinue participating in OHV cross-country recreation in the three-state area.

H4 **Comment:** The North Dakota Game and Fish questions the applicability of the Sylvester (1995) study to the Dakota Prairie Grasslands. Better information is needed for North Dakota.

Response: Given that site-specific information was not available at this phase of the EIS analysis, existing published literature was used to help estimate OHV use. It was viewed that the scientifically based phone survey conducted by Sylvester (1995) could provide a good approximation of

OHV use, even though it was based on users from southwest Montana. As better information is derived during site-specific planning, it will be used to better estimate economic effects.

H5 **Comment:** The North Dakota Game and Fish questions the number of registered ATV's reported for North Dakota.

Response: The North Dakota ATV registration information displayed in Table 3.4 on page 42 of the DEIS was provided by the Motor Vehicle Division, North Dakota Department of Transportation. The ATV numbers in question were verified with Keith Kiser, the Director of the Motor Vehicle Division (personal communications with Keith Kiser on June 7, 2000). The 1998 ATV number has been revised to reflect the personal communication with Keith Kiser. A new report has been provided, which in their opinion provides a better estimate of registered ATV's in 1998 than the previous report. All other North Dakota registered vehicle information was verified and found to be correct. The difference between the two reports is attributable to the two-year registration cycle for ATV's. The correct number of registered ATV's for 1998 is 4,920, not 2,644 as originally reported in the DEIS. The correct number is entered into the tables, figures, and analyses where needed in the FEIS.

H6 **Comment:** The economic analysis does not address the economic impacts to the lessees and permittees.

Response: Under the Preferred Alternative in the DEIS (Alternative 2) and FEIS (Alternative 5), management of OHV use by permittees and lessees would be consistent with current management and should not result in any adverse economic effects. Alternative 1 could possibly increase administrative costs to the permittee and lessee by requiring them to obtain authorization. If authorization is denied, the permittee would not be allowed to travel cross-country with a motorized wheeled vehicle.

H7 **Comment:** What are the economic costs of OHV use to the following items: 1) weed control, 2) trail repair, 3) erosion control, 4) education, 5) law enforcement, 6) revegetation, 7) land reclamation, fire control, 8) litter cleanup, 9) lost wildlife habitat, and 10) threatened and endangered species.

Response: In general, the costs of these various items are dependent on how restrictive the alternatives are on motorized wheeled cross-country travel.

Prevention is the cheapest option for managing invasive exotics. In terms of specific costs, following are a couple of examples: First, it has been estimated that the projected annual economic loss from knapweed alone to Montana's range livestock industry will reach $155 million if knapweed is allowed to continue to spread. This does not include losses to other industries as a result of weeds. Second, the economic loss attributable to leafy spurge in North Dakota is estimated to be in excess of $14 million each year (Lajeunesse 1995). However, the estimated losses quoted here are from all sources of weed spread, not just OHV's. The No Action Alternative is the most costly, given that it maintains motorized wheeled cross-country travel. Alternatives 1, 2, 3 and 5 would lead to lower weed control costs since they are more restrictive. Alternative 4 would have weed control costs similar to the No Action, given its effect on OHV use.

Trail repair, erosion control, revegetation, and land reclamation are outside the scope of this analysis.

The current situation (No Action) would be the least costly for education and law enforcement. All other alternatives would require more education and law enforcement, thus increasing costs to the agencies.

At this time it is difficult to know the cost of litter control and how that cost would differ between the alternatives.

No economic analysis was done with respect to lost wildlife habitat, and threatened or endangered species. Please refer to the Wildlife section of Chapter 3 for a discussion of wildlife effects.

H8 **Comment:** What are the economic impacts to the industries that cater to hikers, horseback riders, mountain bikers, etc.? In other words, what are the economic benefits to nonmotorized users by restricting OHV use to existing roads and trails?

Response: This document specifically addresses motorized wheeled cross-country travel. It was not meant to be a comprehensive recreation document that addresses the economic effects of all

recreation use. The opportunities for hiking, horseback riding, mountain biking, etc. are not affected or are enhanced by restricting motorized wheeled cross-country travel.

H9 **Comment:** The economics information presented is not useful in choosing between alternatives, since the affected OHV use is the same across all alternatives.

Response: Quantitative employment and income estimates were made for the No Action and combined Alternatives 1 through 4 in the DEIS. Specific assumptions were not made concerning the displacement of motorized wheeled cross-country travel for each Alternative. The assumption of 1% vehicle displacement applied to all Alternatives except No Action. Without the assumptions by Alternative concerning motorized wheeled cross-country travel, quantitative job and income estimates could not be made by Alternative. However, in the Economics section of Chapter 3 of the FEIS, quantitative estimates are displayed for Alternative 1, as well as the No Action. Alternatives 2, 3, 4, and 5 are addressed in relative terms, with comparisons to the No Action and Alternative 1 as reference points.

H10 **Comment:** Your data on registered vehicles contradicts data collected by the University of Montana Institute for Tourism and Recreation Research (ITRR). ITRR states that 9.1% of adult Montanans participate in motorcycling, 11.8% in ATV usage, and 19.6% in 4X4 vehicle usage.

Response: The ITRR publication reports the percent of adults who participate in OHV activities based on a 1994 survey. The BLM and FS chose to base this analysis on data from the Motor Vehicle Bureaus because registration information provided 1) the most up-to-date information available, 2) a source of data which allowed a trend to be provided from 1990 through 1998, rather than just one year as in the ITRR publication, and 3) a reliable source of data that was readily available. It is difficult to determine if the ITRR report and the motor vehicle licensing information contradicts each other, since the ITRR survey is based upon individual users and the motor vehicle licensing information is based on registered vehicles that more than one individual can use. The BLM and FS found it more appropriate for this analysis to use information from the governmental agency that has the legal responsibility of registering those vehicles.

H11 **Comment:** The EIS does not contain any recent or reliable empirical evidence showing the amount of current motorized wheeled cross-country travel occurring on public lands.

Response: The FS and BLM don't directly collect OHV use information. The estimated use reported in the DEIS was derived using information from 1) vehicle registration information from the Motor Vehicle Bureaus in the three States, 2) ATV and motorcycle information compiled by Montana Fish, Wildlife and Parks, 3) a 1995 study conducted by the Bureau of Business and Economic Research at the University of Montana, and 4) personal communications with FS and BLM field personnel who provided their professional judgments as to the percentage of vehicles they encountered in their daily fieldwork that were actively participating in motorized wheeled cross-country travel on FS and BLM lands.

H12 **Comment:** What are the economic effects to the communities in the three states, and to the OHV industry in the communities in the three states?

Response: During the scoping process comments and questions were raised concerning the economic effects of this effort on the three individual states. These comments led to the state level structure of the economic impact analysis. This doesn't mean that individual communities are not affected. One must view the state level analysis as the summation of the effects over all of the communities in the three states. As reported in Table 3.9 on page 46 of the DEIS, this effort could have small negative impacts at the state level. At this time, the potential economic impacts are not expected to be concentrated in just a few communities, which should minimize the economics impacts on any specific community.

CULTURAL RESOURCES

I1 **Comment:** I would like to know exactly what cultural sites have been damaged and how often this has occurred. Where is the collaborating evidence to statements that OHV enthusiasts are damaging cultural and tribal resources?

Response: Examples of damage to archaeological sites from OHV travel are provided on pages 47-49 of the DEIS. There are documented OHV impacts to cultural resources and traditional use areas from the Kootenai, Beaverhead-Deerlodge, Gallatin and Lewis and Clark National Forests as

well as the Dillon Field Office and the Dakota Prairie Grasslands.

I2 **Comment:** The use of the word "demise" on page 47 of the DEIS leads one to believe that the reservation system resulted in the demise of cultural integrity.

Response: The sentence has been revised to substitute the word "change" for "demise." With the onset of the reservation system there was a change in tribal cultural integrity.

I3 **Comment:** We recommend that impacts to native plant communities by OHV use be considered as an adverse impact to cultural resources.

Response: The effects of OHV travel on native plant communities are described on page 54 of the DEIS. The effects on specific culturally significant native plant communities would be addressed during site-specific planning.

I4 **Comment:** You should consider an alternative that would actually protect cultural resources?

Response: Alternative 1 is considered to be the most protective alternative for cultural resources. During site-specific planning, inventories and evaluation of OHV use effects on cultural resources would be required as another step toward their protection.

I5 **Comment:** By the EIS definition, OHVers could gain access to routes that may be misinterpreted in the proposed travel planning such as prehistoric trails, historic wagon trails and logging roads. The identification of these culturally significant roads as well as the identification of unauthorized roads or routes is dependent on public participation. The proposed EIS reveals that the public's involvement in the process of the travel planning is limited.

Response: Public participation would be invited at all stages of site-specific planning.

I6 **Comment:** How can you consider preferred Alt 2 to be equal in consequences to Alt 1 regarding the Cultural Resource issue when access to a resource will continue to exist and will not be shut down?

Response: Neither alternative shuts down the access, but the effects are not the same since access of 300 feet is allowed under Alternative 2 for camping along the roads and trails. The cultural effects and Summary Table S.2 have been revised.

VEGETATION

J1 **Comment:** OHV travel not only spreads weed seeds, but also provides optimum conditions for noxious weeds to become established by disrupting the native plant community. Furthermore, OHV's are able to transport weeds many miles into remote areas that would otherwise be weed-free.

Response: For a detailed discussion of invasive weeds, native plant communities, and effects associated with OHV use, see Chapter 3, Vegetation and Weeds, in the FEIS.

J2 **Comment:** As for noxious weeds, why are OHV's singled out as the problem? The EIS contains no information regarding what percentage of weed infestation is attributable to cross-country OHV use. Weeds are spread far more by livestock, hikers, horses, wildlife, even wind and water. You even state that "the elimination of motorized cross-country travel by itself would not make a large difference in weed spread." It appears that the spread of noxious weeds by OHV's is a small or nonexistent problem. This is a weak justification for OHV control.

Response: While it is true that invasive exotic weeds are spread by a multitude of ways, including animals (livestock or wildlife), people hiking, bicycling, all forms of motorized equipment, movement down streams, wind, etc., a review of weed inventory maps demonstrates the strong association of weeds with roads and trails commonly used by people and livestock that transport the seeds. In addition, these areas are kept perpetually disturbed through use. The roads and trails serve as the invasion corridors for many weeds, which then spread away from those locations. Due to the random nature of motorized wheeled cross-country travel, the spread of weeds to new locations is not easily detected. For additional information, see Chapter 3, Vegetation and Weeds, in the FEIS.

J3 **Comment:** Vehicle travel on and off roads has been linked with high rates of establishment and spread of noxious weeds. Under alternatives 1 and 2, OHV's would be restricted to roads and trails, which are both user-created as well as any desig-

nated routes. By legitimizing existing user-created roads and trails, you fail to recognize the tremendous weed potential that continued use of these roads and trails would create. Our rich resource of native vegetation is at risk and is not sufficiently protected with this new designation.

Response: The alternatives considered in this FEIS will not change the status of roads and trails in open areas that are currently in use. Until site-specific planning is completed, these roads and trails will remain as unclassified . Site-specific planning would determine whether the road or trail becomes part of the BLM and FS permanent road and trail system or would be permanently closed. The BLM and FS have the authority to immediately close areas, roads and trails if considerable adverse environmental effects to soil, water, wildlife or vegetation, or are causing user conflicts are occurring. For additional information, see pages 6 and 7 of the DEIS. See Response A26.

J4 **Comment:** Tribal use of plants is impacted through the introduction of exotic plant species by wheeled vehicles. Additionally, off-highway use provides access to remote areas that contain fragile native plant communities.

Response: Native plant communities are displaced when repeated OHV use occurs in a location, whether this use is occurring in a riparian area or upland. The impact of exotic invasive plants is tremendous on native plant communities. These issues are discussed in the DEIS on pages 54 to 58.

J5 **Comment:** All ATV and motorcycle users on public lands should wash their vehicles prior to entering public lands. This requirement should be included in the descriptions of Alternatives 2 and 3 as a prerequisite for any exception to cross-country travel.

Response: The BLM and FS advocate and support the establishment of Integrated Pest Management (IPM) plans that use all suitable methods in a compatible manner to reduce weed populations to levels below those causing unacceptable economic or ecological consequences.

The agencies recognize there are some valid needs for motorized wheeled cross-country travel. However, when driving cross-country individuals should avoid riparian areas, avoid steep slopes, wash vehicles after use in weed-infested areas, travel with care near wildlife, avoid areas with important wildlife habitat, and travel with care near cultural sites. Restrictions in riparian areas, areas with steep slopes, important wildlife habitat areas, etc. are addressed through the BLM and FS normal permitting and leasing processes based on existing management plans and best management practices. This is included under the Preferred Alternative, Alternative 5, in the FEIS.

J6 **Comment:** The spread of noxious weeds should be actively attacked instead of simply restricting motorized use. The elimination of motorized cross-country travel by itself would not make a large difference in weed spread.

Response: There are ongoing federal, state, county, tribal, and private efforts to prevent, contain or control noxious weeds many of which are part of Integrated Pest Management (IPM) plans to prevent and control noxious weeds. Also, considerable work and funds are going into programs to educate the public in identifying noxious weeds to help prevent the various methods of weed seed dispersal. Site-specific planning would include educational efforts aimed at controlling the spread of noxious weeds and invasive plant species by OHV's. See Appendix B in the FEIS for a more detailed discussion on implementation.

J7 **Comment:** The EIS does not address EO 13112 concerning invasive species. It appears that Alternative 2 would not be consistent with this EO.

Response: EO 13112, dated February 3, 1999, provides for 1) definitions of terms, 2) describes Federal Agency duties, 3) establishes an Invasive Species Council, 4) describes Council duties, 5) provides for the development of a National Invasive Species Management Plan, 6) provides for Judicial Review and Administration and generally provides guidance relative to managing invasive species on federal lands. As an EO, all federal agencies are in the process of complying with this mandate. This EIS and plan amendment is addressing the use of OHV on lands administered by the BLM and FS and is not addressing the subject of invasive species, except as an effect associated with OHV use.

J8 **Comment:** The statement that weed free hay is required on BLM and NFS lands in Montana is false. It is only required in wilderness areas.

Response: The requirement to use certified noxious weed seed-free forage on all NFS lands and public lands administered by the BLM in Montana became effective in October 1997.

J9 **Comment:** In the DEIS on page 54, paragraph 6, you state that the western prairie fringed orchid has been documented on disturbed sites. So, disturbance can be good? Also on page 56, paragraphs 2 and 3 you talk about "potential" impacts. Where is the data and supporting evidence?

Response: This question is in two parts. The first part refers to the western prairie fringed orchid. Many species are adapted to particular disturbance regimes. Although this species is adapted to disturbances such as burning and grazing, these disturbance regimes can have positive or negative effects on western prairie fringed orchid populations, depending on frequency, intensity, and timing of the activity. For example, burning or grazing during certain parts of the plant's life cycle may result in direct mortality of individual plants, or reductions in fruit and seed production. Conversely, properly timed grazing regimes and prescribed fire activities, at appropriate intensities, can result in the stimulation of flowering, fruiting, and seed production.

The second part refers to the word "potential" in assessing effects to threatened, endangered or sensitive species. In the case of the threatened western prairie fringed orchid there is data and documentation on effects that can be found in the DEIS for the Northern Great Plains Management Plans Revision. In addition, the U.S. Fish and Wildlife Service has completed a recovery plan for this species in 1996. Both the positive and negative effects of disturbances such as burning, grazing, mowing, roads, trails, ground disturbing activities, and noxious weed treatment are assessed in these documents.

The data and supporting evidence relating to impacts to sensitive plants are found at the local level for site-specific projects. In this project, reference is made to "potential" impacts to sensitive plant species because some species are more vulnerable to ground disturbing activities than others. Without site-specific analyses, these impacts cannot be determined. Each BLM field office or FS district office would have presently known information on sensitive plant species, including the data and supporting evidence on the impacts of various management activities. Due to the programmatic nature of this project, these site-specific impacts have not been individually addressed.

J10 **Comment:** On page 56, paragraphs 6 and 7 of the DEIS, why not keep everyone out, including administrative use. This problem could easily be attended with a closure of the specific areas rather than a 3 state area closure.

Response: Paragraph 6 on page 56 of the DEIS refers to the effects of Alternatives 1 and 2 for the threatened western prairie fringed orchid. In this case, all OHV users are restricted, including administrative and lessees and permittees. Administrative use, lessees and permittees would require prior approval. In the case of Alternative 2, restrictions on administrative use, lessees and permittees apply only to known orchid areas. Since populations of western prairie fringed orchid are known and mapped, closing specific areas for this species is possible, however, this programmatic EIS encompasses numerous other resource concerns in addition to threatened plants. By only restricting known orchid sites, we would not be addressing numerous other resource concerns across the three-state area.

Paragraph 7 of the DEIS refers to the effects of Alternatives 1 and 2 on sensitive plant species. Under Alternative 1, motorized wheeled cross-country travel for administrative use as well as by lessees and permittees would be restricted and would require prior approval. Unlike the known populations of western prairie fringed orchid, many areas have not yet been surveyed for sensitive plant species, therefore, we do not know where all populations are located and cannot close off all sensitive plant locations. Site-specific surveys are conducted at the local level for individual projects.

WILDLIFE

K1 **Comment:** User-created roads are a serious negative impact to wildlife.

Response: Impacts to wildlife from user-created roads are discussed throughout the Wildlife section of Chapter 3 of the DEIS. These roads are recognized as a negative consequence to wildlife of allowing continued uncontrolled use of OHV's on all public lands (Existing Impacts from Vehicles on Wildlife, page 62 of the DEIS). Agencies have the authority to close roads immediately if motorized vehicles are causing considerable adverse effects to soils, water, wildlife or vegetation (page 6 of the DEIS).

K2 **Comment:** "Effects of Recreation on Rocky Mountain Wildlife: a Review for Montana" 1999, Montana Chapter of the Wildlife Society should be used as a reference document for this EIS.

Response: As referenced on page 62 of the DEIS, this analysis relies on the cited document more than any other source for explanation of impacts on wildlife from vehicles and human intrusion. Most research relates to wildlife impacts from roads, not from cross-country travel. However, it is reasonable to draw the conclusion that the impacts are from vehicles and people whether the travel is on or off-road. When the frequency of disturbance is great enough to cause the impacts discussed, it should not make much difference if people arrived via road or cross-country or if they arrived on foot or riding a bicycle, on horseback or by OHV. The agencies did recognize that one of the impacts to wildlife could be from user-created roads (see Response K1).

Some researchers believe that extreme caution must be used when extrapolating study findings from the research area to all other habitats and situations and that the only true applicability is to the original research area. The three-state analysis area has many variables, which is one of the reasons the agencies would undertake site-specific planning before long-term decisions are made concerning individual roads and trails. (Page 64 of the DEIS, Effects Common to all Alternatives).

K3 **Comment:** Virtually all of the impacts to wildlife identified in the wildlife section relates to impacts of general recreational activity upon wildlife or impacts of motorized use on roads and trails on wildlife. That makes me think OHV cross-country travel is not a problem. This DEIS substantiates my views.

Response: Most research describing the effects to wildlife from vehicular activity is from road or road system studies including recreational activity assisted by motorized means on roads and trails. Similar effects are certain to occur from motorized cross-country travel and this correlation is justified. If the motorized cross-country travel in an area is great enough, the effects could be greater given the larger area of influence afforded by cross-country travel. For additional information, refer to Chapter 3, Wildlife section, and the Biological Assessment (Appendix C of the FEIS).

K4 **Comment:** Since snowmobiles are not part of this EIS how can impacts during winter be discussed. Impacts to wildlife on winter range from OHV's (DEIS page 63, paragraph 4) should not be discussed.

Response: The agencies determined snowmobiles to be outside the scope of this analysis (DEIS, page ii). Cross-country travel by motorized wheeled vehicles can occur on most lower elevation winter ranges throughout the winter in the three-state analysis area. Four-wheel drive SUV's are a principal means of travel during the winter in some areas of concern within the analysis area.

K5 **Comment:** We are concerned that provisions were not made for predator control by a permittee or predator control people.

Response: The agency managers responsible for a particular area could authorize motorized wheeled cross-country travel for an individual or group performing official administrative business (such as for predator control). This authority would be through normal permitting processes and/or memoranda of understanding. See Alternative 5 (Preferred Alternative) in Chapter 2 of the FEIS.

K6 **Comment:** The Montana Chapter of the Wildlife Society has recommended that undesignated as well as designated OHV routes be analyzed as open roads when calculating security habitat. New timber sales and other wildlife disturbing activities will need to be curtailed if OHV routes remain open because secure habitats are a required condition of such disturbing activities.

Response: This recommendation is appropriate during site-specific evaluations of particular areas. Agencies already follow this recommendation in most analysis processes. For example, as baseline information is layered for the grizzly bear access model these types of roads and trails have been included to determine road and trail density for a particular area.

K7 **Comment:** Not enough baseline information or anticipated effects analysis was provided in the DEIS to determine what actually would be the overall effect to threatened and endangered (T&E) species.

Response: In response to comments and conversations with the FWS concerning the DEIS and how T&E species were addressed, the agencies

prepared a Biological Assessment, which is presented in Appendix C of the FEIS. Key to this issue is that site-specific planning would address T&E species and consultation would be initiated if the local manager and resource specialists determined that a species might be affected.

K8 **Comment:** The current plan amendment is inadequate to meet the requirements of the NFMA for wildlife monitoring and inventory. I can find no information on indicator species population trends or the relationship of those trends to proposed habitat changes brought on by the OHV plan.

Response: The agencies recognize that with a broad programmatic analysis covering a three-state area, monitoring and inventory information is virtually impossible to collect and display (see Responses K1 and K2). When site-specific planning is addressed for a particular area, meaningful indicator species can be selected and a monitoring plan devised to measure effects from that particular travel plan.

K9 **Comment:** The cumulative effects analysis for wildlife is incomplete and inadequate. To adequately analyze cumulative effects, the DEIS has to analyze the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (Federal or nonfederal) or person undertakes such other actions. In the case of this NEPA document, the cumulative effects analysis for wildlife should have covered the past effects of OHV's on the landscape, as well as quantified future cumulative effects of the proposed alternative. Without any analysis, the cumulative effects analysis concludes: "The remaining alternatives are all positive actions for wildlife ..." Upon what is this based? The cumulative effects analysis for wildlife is incomplete and inadequate, and fails to provide the public with appropriate information to make a decision.

Response: The BLM and FS recognize past user-created roads as a cumulative effect (see Response K1) and the agencies believe that future effects from selection of any of the action alternatives (1-5) would be a beneficial effect because implementation of alternatives would slow down and possibly eliminate impacts to wildlife that are now occurring from cross-country travel, some of which leads to new user-created roads and trails. For more information see page 67 of the DEIS.

K10 **Comment:** The DEIS does not adequately address wildlife linkage. American Wildlands submitted scoping comments on June 11, 1999 about the need to address wildlife linkage as the OHV strategy is developed. We sent maps and a scientific study about wildlife linkage in the region. These comments were not addressed in the DEIS.

The DEIS does not address wildlife impacts in more than a cursory fashion. The DEIS states that many wildlife impacts will be addressed on a site-specific planning level. The regional wildlife linkage concept, however, lends itself to consideration and analysis in this DEIS. The idea of wildlife linkage is becoming well known and accepted by the scientific community. The Interagency Grizzly Bear Committee is forming a subcommittee on grizzly bear linkage in the Northern Rockies. Many scientists have constructed models and analyzed wildlife movement in Montana, Idaho, Wyoming, and British Columbia. The Forest Service is considering issuance of a national direction on wildlife linkage, so that agency managers are encouraged to think outside of their particular boundary jurisdictions. All of this speaks to the need to consider wildlife linkage in regional planning for transportation. The DEIS OHV plan must consider and analyze this issue before a decision is made.

Response: The scientific study attached with the comment letter identified major travel corridors connecting mountain ranges throughout the northern Rockies. According to the study, problems with wildlife linkage normally occur when a corridor of impact such as an interstate highway or activities such as homes, ranches, towns, etc., separate one mountain range from another. The agencies have no evidence that motorized wheeled cross-country travel has been great enough for a long enough period of time over a large enough area to break such a link. This could be a possibility or it could be cumulative to all things that could affect linkages. However, the purpose of this FEIS is to minimize further impacts to wildlife from motorized wheeled cross-country travel. Fragmentation is discussed on pages 62-63 in the DEIS. Agencies are aware of the major corridors shown on the maps and given in the references supplied by the commenter. As site-specific planning occurs in these linkage areas the agencies would address the cumulative effects of particular roads and trails on linkage corridors.

K11 **Comment:** The DEIS states motorized use disturbs and displaces game animals but no references are given for this conclusion.

Response: The environmental consequences to wildlife are discussed in Chapter 3 of the DEIS and FEIS. Several references are cited that address effects on wildlife from OHV use including the extensive literature review conducted by the Montana Chapter of the Wildlife Society. Refer to Chapter 3, Wildlife section of the FEIS and bibliography.

K12 **Comment:** Why is the primary reference for impacts from vehicles on wildlife (DEIS, page 62) a literature review conducted by the Montana Chapter of the Wildlife Society?

Response: The Montana Chapter of the Wildlife Society conducted an extensive literature review, much of which relates to vehicular effects on wildlife. This literature review was one of the numerous references used for preparation of the wildlife section of the DEIS and FEIS. Refer to Chapter 3, Wildlife section and the bibliography for a complete list of references.

K13 **Comment:** Many studies have been conducted which conclude that nonmotorized human presence stresses wildlife to a greater degree than human presence by motorized means. Why are none of these studies cited in the DEIS discussion? Why is there no discussion at all of the effects on nonmotorized human use on wildlife? This DEIS is incomplete without such a discussion.

Response: The purpose of this FEIS is to address impacts from the increasing use of OHV's on areas that are currently available to motorized wheeled cross-country travel. The Preferred Alternative would restrict motorized wheeled cross-country travel yearlong. This FEIS does not address the management of other recreation uses on BLM or NFS lands. Overall recreation management was addressed in each agency's forest plan and resource management plan. The FEIS is specific to motorized wheeled cross-country travel.

K14 **Comment:** The plan does not state that any threatened, endangered, or proposed species are threatened, or will be threatened, by cross-country OHV use. In fact, no specific impacts associated with cross-country OHV usage are identified with respect to any endangered species. Because no impact is likely no action should occur.

Response: The agencies are directed under the Endangered Species Act (ESA) to protect habitats so that proposed species will no become listed as threatened or endangered, to insure that recovered species need not be listed again, and to not adversely affect or jeopardize the continued existence of any threatened or endangered species. With the accelerated use of OHV's the agencies are complying with the ESA. For additional information, refer to the Biological Assessment, Appendix C of the FEIS.

K15 **Comment:** The peregrine falcon is identified on page 61 of the DEIS as a listed species. We suggest the BLM/FS remove the peregrine from discussion in this section because the species has been delisted.

Response: The discussion on the peregrine falcon has been removed from the Threatened and Endangered species portion of the FEIS.

K16 **Comment:** Current lack of restriction on off-road travel increases the negative impact of recreational shooting prairie dog density and town expansion, especially during recover plague events. The Service disagrees with the statement that "shooting of prairie dogs is not allowed in key prairie dog towns." The BLM currently prohibits prairie dog shooting on 16 prairie dog towns in two counties. These towns total 1,045 acres of prairie dog colonies out of the 8 million acres of land administered by the BLM in Montana. In North and South Dakota, the proposed rules allow OHV use on prairie dog colonies that the FS proposed for expansion under Management Plan Revisions covering the Northern Great Plains Grassland Units. Prairie dog shooting often relies on OHV use and may impede efforts to expand prairie dog populations on NFS lands. OHV's may directly negatively impact nesting mountain plovers on many of these prairie dog towns. We do not know of any prairie dog towns administered by the FS in Montana that are closed to recreational shooting. Montana has one of the two remaining significant populations of the mountain plover, a species currently to be listed. Mountain plovers nest almost exclusively in active black-tail prairie dog towns in Montana. Any decrease in recruitment will add to the current downward trend of this species which may increase the likelihood for listing.

Response: BLM is currently participating in a Montana statewide group to determine what steps

will be necessary to protect prairie dog towns and associated species. BLM Washington Office IM No. 2000-140 dated June 22, 2000 directs the states to "In consultation with the state wildlife agency, the U.S. Fish and Wildlife Service (FWS), and any other agency with black-tailed prairie dog management responsibilities, evaluate the need to close or restrict sport hunting of black-tailed prairie dogs on BLM managed lands. Take action if there is mutual agreement this is necessary to ensure conservation of the species."

There are 539 acres of black-tailed prairie dog towns in the Ashland District of the Custer National Forest. No mountain plovers are known to occur on these areas (D. Soffe, pers. comm. 2000). The Forest Service is a participant on this statewide group. There are 3,700 acres of prairie dog towns in the Dakota Prairie Grasslands of North Dakota and South Dakota, and there are no restrictions on vehicles or shooting at this time; however, mountain plovers are not known to occur in either state.

WATER

L1 **Comment:** I am concerned about excessive user-created trails and roads in riparian areas and stream crossings. User-created camps are an excellent traditional use of public lands but they can become eyesores and quite detrimental to the riparian environment if overused and hence some type of monitoring or closure authority may need to be established.

Response: Over use of specific user-created camps in riparian areas is an issue that would need to be addressed at the local FS or BLM office. Under the 'Purpose and Need,' the DEIS (page 3) states, "Site-specific travel planning, or activity planning, will address OHV use on specific roads and trails." The DEIS (page 6) also states that "Existing authorities under the Code of Federal Regulations will continue to be used in site-specific cases where conditions warrant closure of areas or trails that are not meeting the intent of EO's 11644 and 11989."

L2 **Comment:** I am especially concerned that increased siltation of the headwater streams will compromise populations of westslope cutthroat trout, bull trout, and grayling. I did not note anything in the DEIS indicating how sensitive areas would be protected.

Response: The Preferred Alternative precludes motorized wheeled cross-country travel. Therefore, in sensitive areas, the agencies are increasing the protection of these fish species. Management and protection of sensitive areas for aquatic or terrestrial species is an issue that would be addressed at the local FS or BLM office. Under 'Purpose and Need' the DEIS (page 3) states, "Site-specific travel planning, or activity planning, will address OHV use on specific roads and trails." The DEIS (page 6) also states, "Existing authorities under the Code of Federal Regulations will continue to be used in site-specific cases where conditions warrant closure of areas or trails that are not meeting the intent of Executive Orders 11644 and 11989."

L3 **Comment:** Regarding statements on page 67 of the DEIS; how does road use compare to trail use with respect to instream sediment delivery, and specifically what is the relationship between increases in vehicle traffic and increases in sediment delivery (i.e. does a 100% increase in vehicle traffic equate to a 100% increase in sediment delivery)?

Response: A comparison of instream sediment delivery from roads and trails was not performed because the purpose of the EIS is to address cross-country travel, not road and trail use. Sediment from user-created trails is one of the issues being addressed in a preventative manner by the Preferred Alternative. Roads have many design features to minimize sediment delivery to water ways (i.e. bridges, inside ditches, relief culverts, slash filter windrows, etc.) not the least of which is a deliberate location that is often intended to minimize effects to water ways. User-created trails in the analysis area do not have a deliberate location or any design features to minimize negative effects to water ways. Some roads also receive some level of maintenance and user-created trails do not.

As stated in the DEIS (page 67), little research has been performed to quantify sediment delivery increases to water ways associated with user-created OHV stream fords and streamside use, although Brown (1994) does present specific data that sediment delivery to streams from OHV travel at user-created fords does increase with increased OHV traffic. Brown (1994) states, "Results indicate that the amount of sediment displaced from the aprons of material accumulated at a ford is proportional to the number of river crossings

performed." Brown (1994) also states, "This study demonstrates that recreational vehicles are responsible, either directly or indirectly for the addition of significant amounts of sediment to the Crooked and Wongungarra Rivers." Other references in the DEIS present more qualitative data that are congruent with Brown (1994). Brown (1994) is referenced in the DEIS on page 67.

L4 **Comment:** In the aquatics discussion of alternatives you have so little impact to deal with that you make assumptions and guesses. Why not just say this is not a problem as this DEIS has substantiated by the time you reach the end of the section. Under these circumstances, it is difficult to understand why the recommendation of the EIS is to adopt alternative 2, which places substantial restrictions on OHV use.

Response: All known effects to aquatic resources of cross-country OHV use in the analysis area are presented in the DEIS (pages 67-76). Because OHV use is not evenly distributed across NFS and BLM lands in the analysis area, the effects associated with this use are concentrated in frequently used areas (DEIS, Effects Common to All Alternatives, page 73). Identified areas and the associated effects are described in the DEIS (pages 67-73).

See Response A9 and Chapter 2, Selection of the Preferred Alternative of the FEIS for the rationale of the Preferred Alternative.

L5 **Comment:** User-created OHV routes are most often destructive to soil and water because of their vertical nature on steep hillslopes. In addition, agencies must address the impacts of OHV's related to Inland Native Fish Strategy (INFISH) in those watersheds containing westslope cutthroat trout or bull trout.

Response: Vertical ruts left by OHV's on steep hillsides have been observed by the agencies throughout the analysis area, although these features appear to have little effect on riparian processes or aquatic resources. The impacts associated with OHV use were evaluated on all watersheds across the analysis area, including watersheds covered by the INFISH guidelines (USDA, 1995).

L6 **Comment:** Wet meadows, because they are less forested, receive much OHV use. OHV traffic often breaks down stream banks, thus widening streams and increasing streambank erosion. This results in meadows laced with OHV trails that can alter the function of the meadow and detract from the beauty of these special spots.

Response: Similar observations were presented in the 1995 General Accounting Office Report (Information on the Use and Impact of Off-Highway Vehicles) (DEIS, page 68) and by resource specialists in the Upper Missouri River basin (DEIS, page 69). Addressing these types of impacts are part of the purpose and need for this EIS and plan amendment.

L7 **Comment:** The increased erosion caused by improper OHV use often leads to the decreased quality of nearby streams. The increased sedimentation caused by OHV induced erosion destroys spawning redds, and it leads to reduced oxygen levels and increased water temperatures in streams.

Response: Similar observations were presented in the 1995 General Accounting Office Report (Information on the Use and Impact of Off-Highway Vehicles) (DEIS, page 68) and by resource specialists in the Upper Missouri River basin (DEIS, page 69) regarding localized stream bank erosion and degradation of aquatic habitats. Aquatic resource specialists did not identify cross-country OHV use as a cause of increased water temperatures and reduced oxygen levels.

SOILS

M1 **Comment:** If you are saying ohv's are causing erosion then you need to look at what horses do to the trails, which is a lot worse than the ATV's and motorcycles.

Response: This plan amendment addresses motorized wheeled vehicles and a change in area designations from open seasonally or yearlong to limited/restricted yearlong. The designation of areas as open, limited/restricted, or closed is accomplished through the forest plan and resource management planning process. This FEIS addresses the environmental consequences of this change in area designations. The issues involving other uses on roads and trails (hiking, horseback riding, mountain biking), along with motorized use, would be addressed at the local site-specific planning level, but are beyond the scope and intent of this FEIS.

M2 **Comment:** In some areas very little accelerated erosion occurs across clubmoss-Bluegrama range or midgrass range in gently sloping lands.

Response: With an increase in OHV use, the BLM and FS have observed in some areas, the spread of noxious weeds, soil erosion, damage to cultural sites, user conflicts and disruption of wildlife and wildlife habitat. Over the years, random use in open areas has created trail networks throughout the analysis area. Some of this use has occurred in riparian areas and on highly erodible slopes. The BLM and FS realize that impacts from motorized wheeled cross-country travel may be considerably different across Montana, North Dakota, and South Dakota. Problems do not occur equally throughout the analysis area are generally less where topography and vegetation physically limit off-road travel or where travel planning has restricted use.

M3 **Comment:** Table S.2 in the DEIS notes under No Action that Aquatic Resources, Soils, and Air could be, or may have potential to be, degraded. What level of degradation are you referring to? Without quantifying the amount and level of degradation how can you suggest that anything at all needs to be done?

Response: Table S.2 is a brief summary of the effects discussed in Chapter 3 of the DEIS. The table for the FEIS has been revised to better reflect the discussion in Chapter 3. The level of impact to various resources in the analysis area is highly variable and dependent upon numerous factors that cannot be easily quantified at this level. Any increase in motorized wheeled cross-country travel, especially in a concentrated manner, has the potential to damage sensitive upland and riparian soils. This can result in habitat alterations and siltation. An increase in motorized wheeled cross-country travel also has the greatest potential to influence and degrade air quality in the immediate area through motor emissions and fugitive dust. For more information see Chapter 2, Selection of the Preferred Alternative in the FEIS.

M4 **Comment:** Nowhere in the EIS is there any discussion of the impacts of current or projected future usage upon soils. It is unclear why the EIS recommends adoption of Alternative 2 given that no specific impacts to soils are identified, documented, or supported by any empirical evidence or studies anywhere in the EIS.

Response: Impacts to soils are discussed in Chapter 3 of the DEIS on pages 76 and 77. Due to the broad scope of this FEIS soils are not described in detail. The Preferred Alternative was selected on the basis of meeting the purpose and need along with impacts to all resources and uses. For further information see Chapter 2, Selection of the Preferred Alternative of the FEIS.

M5 **Comment:** On page 77 of the DEIS you state that "overall there would be no significant loss of soil due to the very small amount of landscape impacted by OHV's." How did you determine that only a small amount of the landscape is impacted by OHV's. The FEIS should include a description of your methodology and reasoning.

Response: This FEIS addresses a change in area designation from open seasonally or yearlong to limited/restricted yearlong and the effects of that change. This is a programmatic document with a level of specificity and analysis that is broad in nature covering three states and two agencies. The level of detail in Chapter 3, Affected Environment and Environmental Consequences, includes information necessary to support and clarify the impact analysis.

As discussed on page 77 of the DEIS, "In the long term, while small areas of concentrated use would have significant impacts, overall there would be no significant loss of soil due to the very small amount of landscape impact by OHV's." It is estimated that the impacts to the soil resource would be less than 1% of the watershed or land resource area. This is based on the estimated amount of motorized travel that occurs cross-country and the size of the analysis area, approximately 16 million acres.

It is unknown exactly how many people drive motorized wheeled vehicles cross-country. This does not refer to those people who pull off adjacent to an existing road or trail to park or let someone pass, but those who actually travel cross-country. Estimates vary up to 10%, depending on location, that people engaged in motorized activities travel cross-country (see Recreation section, FEIS). Recreation specialists and law enforcement personnel estimate, when one looks at the three-state area from open grasslands in the east to the heavily forested areas of the west and take into account the variations in seasonal use, cross-country travel by motorized wheeled vehicles probably averages 1% or less of the total motorized use.

Most use occurs on roads and trails. This is a small percentage of the total recreation OHV use, but motorized wheeled cross-country travel does cause problems.

AIR QUALITY

N1 **Comment:** What are the current levels of the various contaminants contributing to "bad" air quality within the EIS area?

Response: Due to the broad scope of this FEIS, air quality contaminants are not described in detail. Air quality in the analysis area is excellent and, generally, ambient pollutant levels are well below measurable limits except at or near populated areas. There would be no significant degradation of air quality from any of the alternatives. A general assessment of air quality is provided in Chapter 3, page 78, of the DEIS.

N2 **Comment:** The EIS does not state any identified or quantifiable impacts to air quality associated with any of the alternatives. There is no justification given for the selection of the proposed alternative.

Response: A general assessment of air quality impacts is discussed in Chapter 3 of the FEIS. The Preferred Alternative was selected on the basis of meeting the purpose and need along with impacts to all resources, uses and needs. For further information on selection of the Preferred Alternative, see Chapter 2 of the FEIS.

N3 **Comment:** The DEIS should address impacts to air quality from increased OHV travel on gravel roads and unimproved trails as a result of restrictions on cross-country travel.

Response: OHV impacts to air quality would vary by area, time of year, and amount of use. Increases in contaminants, such as "fugitive dust and carbon monoxide," regardless of traffic volume would have the greatest influence at or near the area of origin. Most impacts would be in areas having graveled or nongraveled county or public land access roads. A general assessment of air quality is provided in Chapter 3, page 78, of the DEIS. Specific data on amounts and effects would need to separate background levels from levels due to increased OHV use and could only be addressed during site-specific planning. An estimated 1% of OHV users travel cross-country (see Chapter 3, Recreation section of the FEIS). Impacts to air quality associated with that 1% would most likely be negligible.

GEOLOGY

O1 **Comment:** Our most productive claim lays 2000 feet above and a few hundred yards from a camping area. At least half of our members would not be able to bring themselves and/or their equipment to these diggings without the use of ATV's. At our outings there are usually a dozen or so machines which are used to shuttle people and equipment back and forth. This use is permitted in our Plan of Operations. We are traveling on an old logging road. Site-specific mitigation is in effect. Although our OHV use may not be immediately or directly prohibited by this proposal, we are concerned that it may somehow predispose forest managers to limit our OHV use in the next Plan of Operations. Furthermore, many of our members use their ATV's to prospect other areas on the public lands that they cannot get to otherwise.

Response: As described, development of this claim as permitted in the Plan of Operations, including access along the logging road, is consistent with this FEIS. None of the action alternatives affect the use of existing roads and trails.

Members could still prospect by OHV as long as they refrain from driving vehicles cross-country. Cross-country travel by motorized wheeled vehicles on lands designated limited/restricted would only be allowed after receiving permission/approval from the authorized officer unless permitted in a Plan of Operations or some other authorization.

IMPLEMENTATION

P1 **Comment:** I can tell you that there is not a single person at the local Ranger Station that could locate even half of the trails that have been historically used in my area. Who will do the inventory? Who will pay for it? Why should we designate every trail on a map when only a few locals use it a few times a year and the FS and BLM doesn't even know it exists or where to find it?

Response: Describing the existing trail system is a fundamental starting point during site-specific planning. This does not mean that every trail that has ever been used would be inventoried or become part of a permanent transportation network. Through site-specific planning, roads and trails

would be inventoried, mapped, analyzed and designated as open, seasonally open or closed based on forest and resource management plans, desired future conditions and management objectives. The inventory would be commensurate with the analysis needs, issues, desired resource conditions and resource management objectives for the area. The intent is to identify the routes that are important to various user groups and to provide balanced opportunities to each user group while protecting the environment. Inventory and mapping would be accomplished by a combination of remote sensing and field survey techniques and may include both government employees and volunteers. The costs of inventorying the trail system, if not donated by volunteers, would be paid from appropriated operating budgets.

P2 **Comment:** I believe there is a compelling need to continue off-highway vehicle use, winter use and associated impact studies. These studies should be directed at a detailed analysis of direct, indirect and cumulative impacts to allow adaptive management strategies. Monitoring activities are proposed in the DEIS to occur on two sites, once a year, across a three-state area. I would like to see a specific schedule as it relates to these monitoring trips.

Response: Common to all alternatives is monitoring for environmental impacts. Monitoring of impacts provides the base information to allow for adaptive management. Monitoring would occur for both this programmatic EIS and at the site-specific planning level. See to Appendix B of the FEIS for a more detailed discussion of monitoring.

P3 **Comment:** We are concerned with the timing of the site-specific planning. The DEIS says that planning for High Priority Areas will be initiated "within two years of the decision." Does "decision" here mean "record of decision" or adoption of the list or something else? We are also concerned then that site-specific analysis of user-built trails/roads is left to another different NEPA analysis with no specific requirement for the initiation of travel planning. We understand that the DEIS-proposed interim policy is in effect until development of local site-specific planning, which could take 10-15 years and that is too long. We also know the situation often arises in federal land management policy that funding or labor constraints dictate that the interim policy remain in effect for an extended period of time and this concerns us. There should be something in the EIS that provides an incentive for the FS and BLM to actively pursue the appropriate steps to develop meaningful travel management plans at the site-specific level.

Response: The commitment is to initiate planning on high priority areas within two years from the time that the Record of Decision is signed. This does not mean that the agencies intend to wait two years before starting site-specific planning. Field offices for both the FS and BLM have ongoing travel planning projects that are expected to be completed within the next 2 years.

After the FEIS is complete, the FS and BLM would continue to develop travel plans for geographical areas at the local, site-specific level with public involvement. All areas affected by the FEIS would be prioritized based on several factors as discussed in Appendix B of the FEIS. Site-specific planning on 16 million acres is not feasible within a 24-month time period. As with any management plan, funding levels, which are beyond the control of agencies at this level, may affect the timing and implementation of management actions and project proposals, but will not affect the decisions made in this plan amendment.

P4 **Comment:** We are concerned that the document states that within six months of completion of the Record of Decision, each field unit will complete a prioritized list of areas for travel planning in close coordination with the public and other partners such as the Resource Advisory Councils. This statement is written without specifying the partners. This statement needs to include permittees, county commissioners, land use planning boards where applicable, grazing districts where applicable, and the rest of the public.

Response: This prioritization process at the local, site-specific level is intended to be collaborative with interested publics, tribes, government agencies and other affected parties. The FS and BLM will make every effort to involve all who express an interest. The Forest Supervisors or Grasslands Supervisor would set the area priorities on NFS lands and the Field Managers would set the area priorities for BLM lands. They would decide jointly for areas of intermingled BLM and FS ownership. These priorities would then be submitted to the Regional Forester and State Director within six months of completion of the Record of Decision.

P5 **Comment:** We are concerned with the theoretical future inventory of motorized routes. The implication is that many of these routes will be closed in the future and the analysis of impacts completed. In this the EIS fails: you cannot hinge your analysis on some future action that may or may not be funded or prioritized in the future. To carry out this inventory would require significant time, effort and funding by both agencies. I frankly question whether the inventory and anticipated closures, analysis and public involvement will ever occur, or will occur in a timely fashion.

Response: The analysis and disclosure of effects on the environment in this FEIS stand on their own without relying on the analysis and inventory associated with site-specific planning. Discussion of site-specific planning at the local level is intended to be informational, but is not part of this programmatic analysis or decision. See Appendix B for implementation and guidance for site-specific planning. Site-specific planning decisions have been completed in recent years and several others are ongoing with completion anticipated within the next year or two.

P6 **Comment:** We have paid staffs of professionals millions of dollars each year for decades to monitor, manage, maintain our public land, and according to this DEIS they have done nothing to identify and implement mitigation measures to stop resource damage or other problems they are authorized and required by law to do. Why have they not addressed the problems caused by OHV's?

Response: Local managers are managing and mitigating problem areas resulting from cross-country OHV use, as evidenced by emergency closures in place and ongoing site-specific planning. It is the responsibility of the land management agencies to monitor the effects of OHV use off roads and trails. Through this monitoring of OHV travel at FS and BLM offices, problems were identified to exist where unrestricted motorized wheeled cross-country travel is allowed. However, problems do not occur equally throughout the analysis area. When a specific road, trail or area has considerable adverse environmental effects occurring, the local manager does have the responsibility and authority (36 CFR 261.10 and 43 CFR 8341.2) to immediately close it to use until the problem has been resolved. The purpose of this FEIS is to avoid future impacts from OHV use on areas that are currently available to motorized wheeled cross-country travel. This would provide direction that would minimize further resource damage, user conflicts, and related problems associated with motorized wheeled cross-country travel, including new user-created roads, until subsequent site-specific planning is completed.

P7 **Comment:** I noticed that there is no mention made of the pervasive problem of inadequate funding and personnel, which keeps both the BLM and FS from doing a better job of managing the resources in their care. This needs to be mentioned in the FEIS so the public is aware of the disparity between agency funding and ability on the one hand and the increasing pressures being put on public lands by OHV operators.

Response: Funds used for managing both the BLM and NFS lands come through an appropriated budget approved by the U.S. Congress. As with any management plan, funding levels, which are beyond the control of these agencies at this level, may affect the timing and implementation of management actions and project proposals, but will not affect the decisions made in the plan amendment. Agencies strive to use discretion in how they allocate these limited funds in managing the resources.

P8 **Comment:** It is our belief that your efforts would be better spent by trying to enforce existing management plans in critical areas and perhaps expanding the avenues of public awareness concerning responsible land use for recreational purposes. We feel that existing travel management restrictions are adequate and the BLM and FS just need to do a better job with enforcement.

Response: The motorized wheeled cross-country travel affected by the Preferred Alternative in the FEIS is in areas that are currently open seasonally or yearlong. Much of the growing OHV use that is of concern is currently legal in these designated open areas. By implementing the Preferred Alternative, the agencies would be proactive in avoiding future negative impacts from the rapidly increasing use of OHV's in these areas. The agencies are continually emphasizing and implementing educational programs, as well as enforcing the regulations. The agencies believe that education is just as important and effective as enforcement in certain circumstances.

P9 **Comment:** To us, the important subjects are simplicity, maps, signage and adequate enforce-

ment. Plans need to be simple enough to follow, information needs to be available so people know the rules, and people need to know that, if they disobey the law, there's a good chance a private citizen will turn them in or an officer will nail them. We understand that limited resources make enforcement a difficult aspect of OHV regulation; however, enforcement is crucial to the success of the proposed management plan.

Response: The FS and BLM understand and acknowledge the necessity and importance of signing, mapping, adequate enforcement and education. Each of these elements is an avenue for the agencies to clearly communicate to users where motorized wheeled OHV travel is acceptable. Public information programs are also very important to communicate recreational opportunities and to develop good resource ethics in all users of our public lands. Until site-specific planning occurs, emphasis would be on enforcement along with education. Appendix B in the FEIS contains more details on implementation and guidance for site-specific planning.

P10 **Comment:** Education is an absolute necessity no matter which alternative is chosen. In the list of management concerns and the environmental issues, we do not find any reference to education and land ethics. A program that would be positive and target education and land ethics would be far more productive and provide many more benefits to the land than the current direction of limiting use. The sooner we begin to help people understand why they need to stay on trails and this becomes their desire, the sooner the land will benefit. Information pamphlets, posters, videos, advertising, signing and educational programs can go a long way and have an immediate impact in protecting our open spaces and avoiding user conflicts.

Response: Public information and education programs are widely supported by the agencies and the public. The agencies believe that education and information are just as important and effective as enforcement. The BLM and FS are currently working with several other agencies and user groups to develop methods to promote safety, develop good land ethics, create an understanding for resource protection, and demonstrate respect for other users. Refer to Appendix B of the FEIS for more discussion on education and information programs.

P11 **Comment:** I believe that a large portion of cross-country travel occurs because the trails cannot be easily seen and no markers are available to guide us to where it is again visible. All routes must be clearly marked!

Response: The long-term goal for the FS and BLM is for motorized wheeled OHV travel to occur on designated roads and trails and in localized intensive use areas. However, designation of specific roads and trails and intensive use areas requires local, site-specific analysis and public involvement. The purpose of this FEIS is to avoid future negative impacts on areas that are currently available to motorized wheeled cross-country travel until subsequent site-specific planning is complete. Efforts will be made to clearly mark these designated routes as they are analyzed and identified during local site-specific planning.

P12 **Comment:** We feel the EIS must address the difficulty of effective enforcement under various alternatives. It's one thing to say that OHV's must stay on established roads and trails. It's another thing to enforce it. I believe it is of little use to make regulations that can't be enforced, no matter the good intentions. The few protections offered are unenforceable. The DEIS says it is "inappropriate" (not illegal) to drive OHV's on "single track" trails. No alternative prohibits OHV's from transforming trails through vegetation damage into OHV roads.

Response: The BLM and FS believe that enforcing cross-country travel restrictions outlined in this FEIS may be somewhat difficult but not impossible. No law enforcement program can ever be 100% effective in eliminating violations. Success of an enforcement program relies on a combination of efforts, such as public compliance and respect for the land, the quantity of law enforcement officials in the field, and public reports of violations. There will be a strong emphasis on education and information along with the enforcement program, especially during the interim until site-specific planning is complete. The agencies believe that the majority of OHV users want to protect the environment and obey the regulations. The agencies have received many offers from user groups to self-police their members and assist in training programs.

The definition for motorized wheeled cross-country travel and the photo captions have been revised in the FEIS. For more information, see Chapter 2,

Definition of Motorized Wheeled Cross-Country Travel and Appendix B of the FEIS for implementation and guidance for site-specific planning.

P13 **Comment:** I found that a problem with the forest map is that it has areas that have road closures, but do not show the area closed! This causes an increase in resource damage, as the OHV users have found they can be "legal" by riding off the road.

Response: The situation in some areas where motorized vehicles are prohibited from using the roads, but are not prohibited from traveling cross-country, was apparently an oversight during the site-specific planning for that particular area. The proposal of this FEIS to limit/restrict OHV's from traveling cross-country on lands currently open seasonally or yearlong to motorized wheeled cross-country travel would solve these situations.

P14 **Comment:** Several of us are concerned about the need to address the management of roads and trails, the details and procedures for completing road and trail inventories, the proposals for designation of roads and trails, suggestions for enforcement or the procedures to be used at the site-specific planning level, the next step.

Response: Guidance for travel management at the site-specific level is addressed in Appendix B of the FEIS. Site-specific planning is beyond the scope of this FEIS, the purpose of which is to avoid future impacts from motorized wheeled cross-country travel on areas that are currently open seasonally or yearlong. This FEIS is intended to provide direction for subsequent site-specific planning. Site-specific planning would address OHV use on individual roads and trails. Many of the public's suggestions and comments would be considered at the local, site-specific planning level, and the agencies encourage the interested public to be involved during this level of planning.

LIST OF PREPARERS

The following are members of the Core Team:

Name	*Agency*	*Position*	*Years of Experience*
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George Peternel	BLM	Recreation	33
Ron Roginske	FS	Recreation	38
Jodi DeHerrera	FS	Public Affairs	19
Craig Flentie	BLM	Public Affairs	14
Jody Weil	BLM	Public Affairs	10
Betty Charnon	FS	Writer/Editor/Plants	9
Kay Haight	BLM	Secretary, Mail, Working Files and Logistics	25
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Connie Sweeney	BLM	Correspondence and Purchaser	12

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Name	*Agency*	*Position*	*Years of Experience*
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Fred Bower	FS	Travel Management/Mapping	21
Tad Day	BLM	Wildlife/Threatened & Endangered Species	30
Rob Harper	FS	Fisheries/Hydrology	10
Lee Jefferis	BLM	Geology	18
Halcyon LaPoint	FS	Cultural Resources	18
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The following are members of the Management Staff:

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Gary Morrison	FS	Regional Office
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Tim Murphy	BLM	Miles City Field Office
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Scott Powers	BLM	Dillon Field Office
George Weldon	FS	Helena National Forest

The following members provided technical support:

Name	*Agency*	*Area*
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Bill Kirchhoff	FS	GIS Mapping
Ron Normandeau	FS	GIS Mapping
Marc Whisler	BLM	Threatened & Endangered Species

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Meade
Pennington
Perkins
Stanley
Sully
Tripp
Yankton
Ziebach

State Agencies

Governor of Montana
Governor of North Dakota
Governor of South Dakota
Montana Bureau of Mines & Geology
Montana Dept. of Agriculture
Montana Dept. of Environmental Quality
Montana Dept. of Transportation
Montana Dept. of Natural Resources and Conservation
Montana Environmental Quality Council
Montana Fish, Wildlife & Parks
Montana State Historic Pres. Office
North Dakota Game and Fish Dept.
North Dakota State Lands Dept.
South Dakota Dept. of Agriculture
South Dakota Dept. of Game, Fish & Parks
South Dakota Dept. of School & Public Lands

United States Representatives and Senators

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US Representative Rick Hill
US Representative Earl Pomeroy
US Representative John Thune
US Representative-Elect C. L. "Butch" Otter
US Representative-Elect Denny Rehberg

US Senator Max Baucus
US Senator Conrad Burns
US Senator Kent Conrad
US Senator Larry Craig
US Senator Michael Crapo
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Federal Agencies

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Federal Aviation Administration
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USDA Snow Survey
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USDA Wildlife Services
USDI Bureau of Indian Affairs
USDI Bureau of Reclamation
USDI Fish and Wildlife Service
USDI National Park Service
USDI Office of Environmental Affairs

Tribal Committees, Councils, and Departments

Assiniboine Sioux Tribal Council
Assiniboine Treaty Committee
Blackfeet Cultural Program
Blackfeet Fish & Game
Blackfeet Legal Department
Blackfeet Tribal Business Council
Blood Tribe Chief & Council
Chippewa Cree Business Committee
Chippewa Cree Cultural Committee
Colville Confederated Tribes
Confederated Salish/Kootenai Tribes
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Eastern Shoshone Cultural Representative
Eastern Shoshone Representative
Fort Belknap Community Council
Fort Belknap Indian Community
Fort Peck Tribal Council
Fort Peck Tribal Water Office
Fort Peck Tribes
Gros Ventre Treaty Committee
Hunkpapa Sioux
Kootenai Tribe of Idaho
Little Shell Tribe
Mandan Hidatsa Arikara Tribe
Metis
Nez Perce Executive Council
Nez Perce Tribe
Northern Cheyenne Committee
Northern Cheyenne Tribal Council
Northern Cheyenne Tribe
Oglala Sioux Tribe
Rocky Boy Chippewa Cree Tribe
Rocky Boy Indian Reservation

Rosebud Sioux Tribe
Shoshone/Bannock Tribes
Standing Rock Sioux Tribe
Three Affiliated Tribes
Turtle Mountain Band of Chippewa
Wind River Agency
Wind River Shoshone Business Council

Organizations, Businesses and Others

320 Ranch
5S Outfitting
63 Ranch
Access Montana Outdoors Inc.
Action Travel
Adams Wood Products
Advantage Resources Inc.
Adventure Skills Guide Service
Agri-News
Alliance for The Wild Rockies
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Big Sandy NRCS Office
Big Sky Coal Co.
Big Sky Cyclery
Big Sky Guide & Outftrs Inc.
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Big Sky Trailriders
Big Sky Upland Bird Assn.
Billings Gazette
Billings Land Use Committee
Billings Motorcycle Club
Billings Rod & Gun Club
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Bitterroot Chamber of Commerce
Bitterroot Grizzly Motorcycle Alliance
Bitterroot Outfitters
Bitterroot Rough Riders OHV Club
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Black Hills 4-Wheelers
Black Hills Off Roaders
Black Hills Regional Multiple Use Coalition
Black Hills Snowmobile Council
Black Mountain Outfitters
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Blue Ribbon Environmental Products, Inc.
Blue Ribbon Flies
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Bowman Co. Pioneer
Bozeman Chronicle
Brainerd Foundation
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Cargill Outfitting
Carter County Predator Board
Carter County Sheep & Cattle Growers
Carter County Sheriff
Cascade County 4-Wheelers
Cascade County Air Quality
Cascade County Weed Supervisor
Castle Mt. Livetock Assn.
Causeway Energy Corp
Ceda-Pine Veneer, Inc.
Cenex Harvest States
Center for The Rocky Mtn West
Central Montana Resource Advisory Council
Central Montana RC & D
Central Montana Trail Users
Central Montana Wildland Assn.
Chain of Lakes Homeowners Assn.
Chamber of Commerce and Agriculture
Charlie Russell Backcountry Horsemen
Checkerboard Cattle Company
Cherry Creek Angus Ranch
Choteau Acantha
Circle 8 Ranch
Citizens for a Vehicle Free Nipomo Dunes
Citizens for a Weed Free Future
City of Dillon
City of Troy
Clark Fork Ranch
Coal Age - Intertec Publishing
Coal Creek CSGD
Coalition for Canyon Preservation
Cody Country Outfitters
Cold Mountain, Cold Rivers
Coldwell & Sons
Colorado Grizzley Project
Colorado State University
Committee Access Public Lands/Handicapped
Committee for Responsible Recreation
Communities for a Great Northwest
Concerned Friends of the Winema
Confluence Timber Company
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Endangered Species
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Heart of the West Ranch
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Helena Forest Conservation Coalition
Helena Outdoor Club
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Hellgate River Ranch
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High Country Discovery
High Plains News Service
High Plains Drifter
Highland Rose Contracting & Supply, LLC
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Homestead Valley Trust
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Horse Creek Grazing Assn.
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Hughes and Sons Cattle Co.
Hunt Oil Co.
Hunts Timber
Idaho County
Idaho Division of Environmental Quality
IEPLC Forest Watch
Indian Creek Ranch
Island Park News
IX Ranch Co.
J & J Guide Service
J & L 4-Wheel Drive Center, Inc.
Jack Atcheson Guide Service
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Jackson Ranches
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Lenhardt Agency
Lenington Farms
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Lewis & Clark Trail Heritage Foundation
Lewis & Clark Wildlife Club

Lewis Trust 1990
Lewistown News Argus
Liberty County Conservation District
Lightning Creek Outfitters
Lincoln County Economic Development Council
Lincoln Financial Advisors Corp.
Little Belts Snowmobile Club
Little Missouri Grazing Assn.
Lo Bar Cattle Co.
Louisiana Pacific Corporation
Loure Petrie Ranch Partnership
Lubrecht Forest
Ludlow Coop Grazing District, Inc.
Lutheran Bible Camp, Inc.
Mackay Family Trust
Madison County Weed Supervisor
Madison Fork Ranch
Madison Gallatin Alliance
Magic City 4-Wheelers
Magic City 4x4's
Malta Chamber of Commerce
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Malta Public Schools
Marble Law Office
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Marshall Ranch
Masterlinks Cycle Club
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McIntosh Ranch LLP
McIntyre Ranch Inc.
McKenzie County Grazing Assn.
McKenzie Electric Cooperative, Inc.
McLaughlin Insurance Services
McLaughlin Research Institute
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Meagher County Sportsmen Assn.
Meagher Weed Board
Mecaha Cattle Company
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Medora Grazing Assn.
Midwest 4 Wheel Drive Assn.
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Mineral County Watershed Council
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Montana Air Insurance Services
Montana Assn. of Counties
Montana Assn. of Grazing Districts
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Montana Chamber of Commerce
Montana Chapter Irwa
Montana Chapter of The Wildlife Society
Montana Dakota Utilities Co.
Montana Ecosystems Defense Council
Montana Environmental Info. Center
Montana Farmer's Union
Montana House of Representatives, Patrick Galvin
Montana House of Representatives, Diana Wyatt
Montana House of Representatives, William Wiseman
Montana House of Representatives, Carley Tuss
Montana House of Representatives, Joe Tropila
Montana House of Representatives, Richard Simpkins
Montana House of Representatives, J. G.Shockley
Montana House of Representatives, Trudi Schmidt
Montana House of Representatives, William "Bill" Ryan
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Montana House of Representatives, Scott Orr
Montana House of Representatives, Gay Ann Masolo
Montana House of Representatives, Chris Ahner
Montana House of Representatives, Paul Clark
Montana House of Representatives, John Cobb
Montana House of Representatives, David Ewer
Montana House of Representatives, Deb Kottel
Montana House of Representatives, Hal Harper
Montana House of Representatives, Marian Hanson
Montana House of Representatives, Edward "Ed" Grady
Montana Legislature 56th Session, Linda Stoll
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Montana Native Plant Society
Montana Nature Conservancy
Montana Night Riders
Montana Outfitters & Guides Assn.
Montana Parks Assn.
Montana Petroleum Assn.
Montana Pilot's Assn.
Montana Public Lands Council
Montana Rawhide
Montana River Action Network
Montana Senate, John Hertel
Montana Senate, Bill Wilson
Montana Senate, Mignon Waterman
Montana Senate, Kenneth "Ken" Mesaros
Montana Senate, Eve Franklin
Montana Senate, Mike Foster
Montana Senate, Steve Doherty
Montana Senate, Wm. S. Crismore
Montana Senate, Bf "Chris" Christianens
Montana Senate, Thomas "Tom" Beck
Montana Senate, Sue Bartlett
Montana Senate, Gary Aklestad

Montana Snowmobile Assn.
Montana State University
Montana Stockgrowers Assn.
Montana Trail Vehicle Riders Assn.
Montana Trails Assn.
Montana Trout Unlimited
Montana Woolgrowers Assoc
Montana Wilderness Assn.
Montana Wildlife Assn.
Montana Wildlife Federation
Montanans for Multiple Use
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National Wildlife Federation
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Native Forest Network, Yellowstone
Natural Bridge Ranch
Nature Conservancy - Dakota Chapter
Nature Conservancy of Montana
Neibauer Painting
Neighborhood Planing Site Design
Newton Aviation
Nine Sixty Nine Ranch
Nine Quarter Circle Ranch
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Northern Hills Birders
Northern Plains Resource Council
Northern Rockies Natural History
Northwest Environmental Defense Center
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Rocky Mountain Recreation Initiative
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Russell Country Sportsmen's Assn.

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SD Trailriders Assn.
SE Electric Coop
Seven-C Quarter Outfitters
Sheridan Gun Club
Sheyenne Valley Grazing Assoc
Shotgun Construction
Sierra Club
Sierra Club - Indian Peaks Group
Sierra Club - Montana Chapter
Sierra Club - Teddy Roosevelt
Silver Springs Ranch
Silver Tip Ranch
Silverbow Archers
Simpson, Thacher & Bartlett
Sitz Angus Farms, Inc.
Skyline Sportsmen's Assn.
Slope Count State's Attorney
Smiling Gulch Ranch
Smith 6 Bar S Livestock
Smith Orthodontics
SN Repair and Maintenance
Snappy Sport Senter
Snowmobile North Dakota
Society of Range Management
Solf Brothers
Soup Cr Ranch
South Hills Water & Sewer District
South Dakota Assn. of County Commissioners
South Dakota Public Lands Council
Southeastern Livestock Assoc
Southeastern Montana Sportsmen Assn.
Southern Appalachian Biodiversity Project
Southern Illinois University
Southwest Montana Wildlands Alliance
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Starshine
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Stender Ranch, Inc.
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Sula Country Store
Summit Motor Sports
Summit River Corp.
Sunset Irrigation District
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Sweet Grass County Recreation Assn.
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The Nature Conservancy
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The Wildlife Society
Theodore Roosevelt Memorial Ranch
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Tierra Linda Ranch
Tilstra Ranch
Timber Stone Handcrafted Log Homes
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Tomahawk Ranch
Toston Rod & Gun Club
Townsend Star
Treasure State ATV Assn.
Trout Unlimited
True Oil Company
Turkey Track Club
Turner Enterprises
Under Wild Skies Outfitting
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University of Minnesota
University of Montana
University of Utah
Upper Canyon Outfitters
Upper Clark Fork BCH
Upper Missouri River Group-Sierra Club
Upper Musselshell Sports Club
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Utah Shared Access Alliance
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Varmint Hunters Assn., Inc.
Veseth Ranch
Vigilante Electric
Vigilante Snowmobilers
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Wade Lake Resort
WalshRanch
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Western Environmental Trade Assn.
Western Forest Industries Assn.
Western Montana Clinic
Western Montana Cons. Assn.
Western Montana Resource Advisory Council
Western Montana Wildlife
Western South Dakota Fur Harvesters
Wheatland County Sheriff's Office
Whitefish Pottery
Wild Horse Organized Assistance, Inc.
Wild Skies
Wild Trout Outfitters
Wild Wind Records
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Wildlands Center for Preventing Roads
Wildlife Management Institute
Williston Basin Pipeline Co.
Wisconsin Four Wheel Drive Assn.
Witmer Insurance Services, Inc.
Wolverton Saddle Club
Woodland Management
WY Sawmills Incorporated
Xeno Inc.
Yates Petroleum Company
Yellowstone Arctic /Yamaha
Yellowstone County Weed Department
Yellowstone Foot & Ankle Center
Yellowstone Valley Audubon Society

The FEIS was also mailed to about 6,100 individuals. This list is available for review by contacting the BLM Lewistown Field Office (406-538-1924).

GLOSSARY

This glossary defines terms used by the Forest Service and Bureau of Land Management to explain natural resource concepts and management activities specific to this final environmental impact statement and proposed plan amendment.

AFFECTED ENVIRONMENT. The natural, physical and human-related environment that is sensitive to changes from the alternatives.

AIR POLLUTANT. Any substance in air that could, if in high enough concentration, harm humans, animals, vegetation, or material. Air pollutants may include almost any natural or artificial matter capable of being airborne, in the form of solid particles, liquid droplets, gases, or a combination of these.

AIR QUALITY. Refers to standards for various classes of land as designated by the Clean Air Act, P.L. 88-206: Jan. 1978.

ALTERNATIVE. A mix of management prescriptions applied to specific land areas to achieve a set of goals and objectives. Each alternative represents a different way of achieving a set of similar management objectives. Sometimes the term "action alternative" is used when it is desirable to recognize that there is a "no action" alternative under which the proposed activity would not take place.

AMENITY. Resource use, object, feature, quality, or experience that is pleasing to the mind or senses; typically refers to values for which monetary values are not or cannot be established, such as scenic or wilderness values.

ANALYSIS AREA. The geographic area defining the scope of analysis for the project. Sometimes for a particular resource, the analysis area may have to be larger when effects have potential to extend beyond the boundaries of the proposal.

BENEFICIAL USES. Attributes that are considered useful products of the resource. They may include (but are not limited to) recreation, production of salmonid fishes, drinking water, power generation, and irrigation.

BEST MANAGEMENT PRACTICES. Methods, measures or practices to prevent or reduce water pollution including, but not limited to, structural and non-structural controls, operation and maintenance procedures, other requirements, scheduling and distribution of activities. Usually, BMP's are selected on the basis of site-specific conditions that reflect natural background conditions and political, economic, and technical feasibility.

BIG GAME. Those species of large mammals normally managed as a sport hunting resource.

BIOLOGICAL DIVERSITY. The variety of life and its processes, including bacteria and fungi as well as higher forms of life, such as plants, insects, birds, fish and mammals.

CASUAL USE (BLM Locatable). Mining activities that only negligibly disturb federal lands and resources. Casual use does not include the use of mechanized earth moving equipment or explosives or the use of motorized equipment in areas closed to off-road vehicles. Under casual use, operators do not have to notify BLM and operations do not need to be approved, but operations are subject to monitoring by BLM to ensure that federal lands do not undergo unnecessary or undue degradation. Casual use operations must be reclaimed.

CLASS I AREA. Under the 1977 Clean Air Act and amendments, all international parks, national parks greater than 6,000 acres, and national Wilderness Areas greater than 5,000 acres which existed on August 7, 1977. This class provides the most protection to pristine lands by severely limiting the amount of additional air pollution that can be added to these areas.

CLASSIFIED ROADS. Roads wholly or partially within or adjacent to National Forest System lands that are determined to be needed for motor vehicle access, such as state roads, county roads, privately owned roads, National Forest System roads authorized by the Forest Service that are intended for long-term use.

CLIMATE. The composite or generally prevailing weather conditions of a region throughout the year, averaged over a series of years.

CLOSED ROAD. A road or segment which is restricted from certain types of use during certain seasons of the year. The prohibited use and the time period of closure must be specified.

CODE OF FEDERAL REGULATIONS (CFR). The official, legal tabulation or regulations directing federal government activities.

COMMUNITY. A group of one or more populations of plants and animals in a common spatial arrangement; an ecological term used in a broad sense to include groups of various sizes and degrees of integration.

CONIFER. Any of a group of needle- and cone-bearing evergreen trees.

COVER. Vegetation used by wildlife for protection from predators, breeding and rearing of young (hiding cover), or to ameliorate conditions of weather (thermal cover).

CULTURAL RESOURCES. The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) having scientific, prehistoric, or social values.

CUMULATIVE EFFECT. The impact on the environment which results from the incremental impact of the action when added to other actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time.

DECIDING OFFICER. The Forest Service or Bureau of Land Management employee who has the authority to select and/or carry out a specific planning action.

DEMOGRAPHIC. Related to the vital statistics of human populations (size, density, growth, distribution, etc.) and the effect of these on social and economic conditions.

DESIGNATED ROADS AND TRAILS. Specific roads and trails identified by the agencies where some type of motorized vehicle use is appropriate and allowed either seasonally or yearlong.

DIRECT EFFECTS. Effects on the environment which occur at the same time and place as the initial cause or action.

DESIRED FUTURE CONDITION. A portrayal of the land or resource conditions which are expected to result if goals and objectives are fully achieved.

DEVELOPED RECREATION. Outdoor recreation requiring significant capital investment in facilities to handle a concentration of visitors on a relatively small area. Examples are ski areas, resorts, and campgrounds.

DISPERSED RECREATION. Outdoor recreation in which visitors are diffused over relatively large areas. Where facilities or developments are provided, they are more for access and protection of the environment than for the comfort or convenience of the people.

DIVERSITY. The relative distribution and abundance of different plant and animal communities and species within an area.

ECOSYSTEM. The complete system formed by the interaction of a group of organisms and their environment.

ECOTONE. An ecological community of mixed vegetation formed by the overlapping of adjoining communities.

EFFECTS (or impacts). Environmental consequences (the scientific and analytical basis for comparison of alternatives) as a result of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable, or cumulative.

EMISSION. A release into the outdoor atmosphere of air contaminants.

ENDANGERED SPECIES. Any plant or animal species which is in danger of extinction throughout all or a significant portion of its range. (Endangered Species Act of 1973).

ENVIRONMENT. The aggregate of physical, biological, economic, and social factors affecting organisms in an area.

ENVIRONMENTAL ANALYSIS. An analysis of alternative actions and their predictable environmental effects, including physical, biological, economic, and social consequences and their interactions; short- and long-term effects; direct, indirect, and cumulative effects.

ENVIRONMENTAL IMPACT STATEMENT (EIS). A detailed statement prepared by the responsible official in which a major Federal action which significantly affects the quality of the human environment is described, alternatives to the proposed action provided, and effects analyzed.

EPHEMERAL STREAMS. Streams that flow only as a direct response to rainfall or snowmelt events. They have no baseflow.

EROSION. Detachment or movement of soil or rock fragments by water, wind, ice, or gravity. Accelerated erosion is much more rapid than normal, natural, or geologic erosion, primarily as a result of the influence of activities of people, animals, or natural catastrophes.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA). Public Law 94-579, October 21, 1976, often referred to as the BLM's "Organic Act," which provides the majority of the BLM's legislated authority, direction, policy and basic management guidance.

FEDERAL REGISTER. A daily publication which reports Presidential and Federal Agency documents.

FISH HABITAT. The place where a population of fish species lives and its surroundings; includes the provision of life requirements such as food and cover.

FISHERY. The total population of fish in a stream or body of water and the physical, chemical, and biological factors affecting that population.

FLOODPLAIN. The lowland and relatively flat areas adjoining inland and coastal waters, including, at a minimum, that

area subject to a one percent or greater chance of flooding in any given year.

FLORA. The plant life characteristic of a region, period, or special environment.

FORAGE. Vegetation used for food by wildlife, particularly big game wildlife and domestic livestock.

FORB. Any herbaceous (herb-like) plant, other grass or grass-like plants.

FOREST COVER TYPE. A descriptive classification of forest land based on the present vegetative species composition and/or locality (i.e., lodgepole pine, mixed conifer). Most stands are given a classification (stratum label), based on aerial photo interpretation, that includes the forest cover type, size class, density class, and stand development phase.

FOREST PLAN. Refers to the various land and resource management plans for each national forest.

FOREST ROAD. A road wholly or partly within or adjacent to and serving the National Forest System and which is necessary for the protection, administration and utilization of the National Forest System and the use and development of its resources.

FRAGMENTATION. Process by which habitats are increasingly subdivided into smaller units, resulting in their increased insularity as well as losses of total habitat area.

HABITAT. The sum total of environmental conditions of a specific place occupied by a wildlife species or a population of such species.

HABITAT TYPE. An aggregation of all land areas potentially capable of producing similar plant communities at climax.

HARDWOODS. A conventional term for the wood of broadleaf trees. In the decision area these trees are generally confined to areas near water.

INDIRECT EFFECTS. Secondary effects which occur in locations other than the initial action or significantly later in time.

IN-MIGRATION. The movement of new residents into an area.

INTERAGENCY GUIDELINES. A document which was originally developed in the Yellowstone grizzly bear ecosystem and later applied to all grizzly habitat through congressional mandate. Previously known as the "Yellowstone Guidelines," it identifies important, specific management measures regarding the conduct of multiple use activities in grizzly bear habitat and parameters for identifying the sensitivity of grizzly bear habitat to human activities.

INTERDISCIPLINARY TEAM (IDT). A group of resource professionals with different expertise that collaborate to develop and evaluate resource management decisions.

INTERMITTENT STREAM. A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow.

IRRETRIEVABLE IMPACT. Commitment of a resource would be considered "irretrievable" when the project would directly eliminate the resource, its productivity, and/or its utility for the life of the project.

IRREVERSIBLE IMPACT. The commitment of a resource would be "irreversible" if the project started a "process" (chemical, biological, and/or physical) that could not be stopped. As a result, the resource or its productivity, and/or its utility would be consumed, committed, or lost forever.

ISSUE INDICATORS. A "yardstick" for measuring or comparing any changes associated with each issue or concern by alternative.

LANDSCAPE. The aspect of the land that is characteristic of a particular region or area.

LIFEWAYS. The manner and means by which a group of people lives; their way of life. Components include language(s), subsistence strategies, religion, economic structure, physical mannerisms, and shared attitudes.

LOWER MONTANE. A terrestrial community that generally is found in drier and warmer environments than the montane terrestrial community. The lower montane community supports a unique clustering of wildlife species.

MANAGEMENT AREA. Geographic areas, not necessarily contiguous, which have common management direction.

MANAGEMENT DIRECTION. A statement of multiple use and other goals and objectives, along with the associated management prescriptions and standards and guidelines to direct resource management.

MANAGEMENT INDICATOR SPECIES (MIS). A species of wildlife, fish, or plant whose health and vigor are believed to accurately reflect the health and vigor of other species having similar habitat and protection needs to those of the selected indicator species.

MITIGATION. Actions to avoid, minimize, reduce, eliminate, replace, or rectify the impact of a management practice.

MONITORING AND EVALUATION. The evaluation, on a sample basis, of management practices to determine how well objectives are being met, as well as the effects of those management practices on the land and environment.

MONTANE. Inhabiting the cool, moist ecological zone located near the timberline and usually dominated by evergreen trees.

MOTORIZED WHEELED VEHICLE. Includes all types of motorized wheeled vehicles capable of or designed for, travel on or immediately over land or other natural terrain (motorcycles, four-wheel drive vehicles, all-terrain vehicles, sport utility vehicles, pickup trucks, etc.) and includes those vehicles that have the driving wheels moving inside endless tracks, or capable of conversion to such method of travel.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA). An act which encourages productive and enjoyable harmony between man and his environment; promotes efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; enriches the understanding of the ecological systems and natural resources important to the Nation; and establishes a Council on Environmental Quality.

NATIONAL FOREST MANAGEMENT ACT (NFMA). A law passed in 1976 as amendments to the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of Regional and Forest plans and the preparation of regulations to guide that development.

NATIONAL FOREST SYSTEM. All national forest lands reserved or withdrawn from the public domain of the United States, all national forest lands acquired through purchase, exchange, donation, or other means, the national grasslands and land utilization projects administered under Title 111.

NATIVE FISH. Fish species that are indigenous to a region's waters, as opposed to introduced or exotic fish.

NATIVE SPECIES. Species that normally live and thrive in a particular ecosystem.

NEPA PROCESS. An interdisciplinary process, mandated by the National Environmental Policy Act, which concentrates decision-making around issues, concerns, alternatives and the effects of alternatives on the environment.

NO ACTION ALTERNATIVE. The No Action Alternative is required by regulations implementing the National Environmental Policy Act (NEPA) (40 CFR 1502.14). The No Action Alternative provides a baseline for estimating the effects of other alternatives. Where a project activity is being evaluated, the No Action Alternative is defined as one where no action or activity would take place.

NONDESIGNATED ROADS AND TRAILS. Roads and trails that have not yet gone through site-specific travel planning to determine if they should be open, closed, or restricted to motorized vehicle use or roads and trails that have gone through travel planning and determined that motorized vehicle use is not appropriate and is not allowed.

NONGAME SPECIES. All wild animals not subject to sport hunting, trapping or fishing regulations.

NONPOINT SOURCE POLLUTION. Pollution whose source is not specific in location; the sources of the pollutant discharge are dispersed, not well defined or constant. Examples include sediments from logging activities and runoff from agricultural chemicals.

NOXIOUS WEEDS. A plant species designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the United States. According to the Federal Noxious Weed Act (PL 93-639), a noxious weed is one that causes disease or has other adverse effects on people or their environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health.

OFF-HIGHWAY VEHICLES or OFF-ROAD VEHICLES. Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (A) any registered motorboat, (B) any military, fire, emergency, or law enforcement vehicle when used for emergency purposes, and (C) any vehicle whose use is expressly authorized by the respective agency head under a permit, lease, license, or contract.

OFF-ROAD VEHICLE DESIGNATIONS (BLM)

Open: Designated areas and trails where off-road vehicles may be operated, subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343; or an area where all types of vehicle use is permitted at all times, subject to the standards in BLM Manuals 8341 and 8343.

Limited: Designated areas and trails where the use of off-road vehicles is subject to restrictions, such as limiting the number or types or vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads and trails. Under the designated roads and trails designation, use would be allowed only on roads and trails that are signed for use. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year.

Closed: Designated areas and trails where the use of off-road vehicles is permanently or temporarily prohibited. The use of off-road vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer.

OFF-ROAD VEHICLE DESIGNATIONS (FS)

Open: Areas and trails on which all types of motorized vehicles may be operated off roads without restrictions.

Restricted: Areas and trails on which motorized vehicle use is restricted by times or season of use, types of vehicles, vehicle equipment, designated areas or trails, or types of activity specified in orders issued under the authority of 36 CFR 361.

Closed: Areas and trails on which all motorized vehicle use is prohibited, except by permit, under authority of 36 CFR 261 or by law.

OPEN TO PUBLIC TRAVEL. Except during scheduled periods, extreme weather conditions or emergencies, is open to the general public for use with a standard passenger auto, without restrictive gates or prohibitive signs or regulations, other than general traffic control or restrictions based on size, weight, or class of registration. (23 CFR 660).

PERENNIAL STREAMS. Streams that flow continuously throughout the year.

PLAN AMENDMENT. The system that provides a step-by-step process for considering multiple resource values, resolving conflicts, and making resource management decisions.

PLANNING CRITERIA. The factors used to guide development of the resource management plan, or revision, to ensure that it is tailored to the issue previously identified and to ensure that unnecessary data collection and analysis are avoided. Planning criteria are developed to guide the collection and use of inventory data and information, analysis of the management situation, design and formulation of alternatives, estimation of the effects of alternatives, evaluation of alternatives, and selection of the preferred alternative.

POPULATION. In statistics, the aggregate of all units forming the subject of study; otherwise, a community of individuals that share a common gene pool.

PREFERRED ALTERNATIVE. The agency's preferred alternative, one or more, that is identified in the impact statement (40 CFR 1502.14).

PRESCRIBED BURNING. The intentional application of fire to wildland fuels in either their natural or modified state under such conditions as to allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to further certain planned objectives (i.e., silviculture, wildlife management, reduction of fuel hazard, etc.)

PROGRAMMATIC EIS. An environmental impact statement that establishes a broad management direction for an area by establishing a goal, objective, standard, management prescription and monitoring and evaluation requirement for different types of activities that are permitted. It also can establish what activities are not permitted within the specific area(s). This document does not mandate or authorize the permitted activities to proceed.

PROJECT AREA. The geographic area defining the scope of this document and the alternatives proposed by it.

PROJECT FILE. An assemblage of documents that contains all the information developed or used during an environmental analysis. This information may be summarized in an Environmental Assessment or an Environmental Impact Statement. The project file becomes part of the administrative record for judicial review in case of legal action.

PUBLIC LANDS or BLM LANDS. Any land and interest in land (outside of Alaska) owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management.

RANGER DISTRICT. An administrative subdivision of the National Forest, supervised by a district ranger who reports to the forest supervisor.

RECORD OF DECISION. A concise public document disclosing the decision made following preparation of an EIS and the rationale used to reach that decision.

RECREATION VISITOR DAYS (RVD). One 12-hour period of recreation. It can be one person for 12 hours, 2 people for 6 hours, 12 people for 1 hour, etc.

RECREATIONAL OPPORTUNITIES. The combination of recreation settings, activities and experience provided by the forest.

REDD. Spawning nest made by salmon or steelhead in the gravel bed of a river.

RESOURCE MANAGEMENT PLAN. A BLM planning document, prepared in accordance with Section 202 of the Federal Land Policy and Management Act, that presents systematic guidelines for making resource management decisions for a planning area. An RMP is based on an analysis of an area's resources, existing management, and capability for alternative uses. RMP's are issue oriented and developed by an interdisciplinary team with public participation.

RESTRICTED ROAD. A National Forest road or segment which is restricted from a certain type of use or all uses during certain seasons of the year or yearlong. The use being restricted and the time period must be specified. The closure is legal when the Forest Supervisor has issued an Order and posted that Order in accordance with 36 CFR 261.

RIPARIAN AREAS/HABITATS. Land areas where the vegetation and microclimate are influenced by perennial and/or intermittent water.

ROADLESS AREA. A national forest area which 1) is larger than 5,000 acres, or if smaller than 5,000 acres, contiguous to a designated wilderness or primitive area; 2) contains no roads; and 3) has been inventoried for possible inclusion in the wilderness preservation system.

SCOPING. The procedures by which the Forest Service and BLM determine the extent of analysis necessary for a proposed action, i.e., the range of actions, alternatives, and impacts to be addressed, identification of significant issues related to a proposed action, and establishing the depth of environmental analysis, data, and task assignments needed.

SEASONAL CLOSURE. Area or road closed part of the year.

SEDIMENT. Any material carried in suspension by water, which will ultimately settle to the bottom. Sediment has two main sources: from the channel area itself and from disturbed sites.

SEMI-ARID. Moderately dry; region or climate where moisture is normally greater than under arid conditions but still definitely limits the production of vegetation.

SENSITIVE SPECIES. Those species identified by the Regional Forester for which population viability is a concern as evidenced by significant current or predicted downward trends in (a) population numbers or density, or (b) habitat capability that would reduce a species' existing distribution.

SENSITIVITY LEVEL. A particular degree or measure of viewer interest in the scenic qualities of the landscape.

SHRINK-SWELL POTENTIAL. The susceptibility of soil to change in volume due to a loss or gain in moisture content. A shrink-swell potential is typically associated with soils that have a high percentage of clay.

SHRUB. A plant with persistent woody stems and relatively low growth form; usually produces several basal shoots as opposed to a single bole; differs from a tree by its low stature and nonarborescent form.

SIGNIFICANT. As used in NEPA, requires consideration of both context and intensity. Context means that the significance of an action must be analyzed in several contexts, such as society as a whole and the affected region, interests, and locality. Intensity refers to the severity of impacts (40 CFR 1508.27).

SPECIAL STATUS SPECIES. Refers to federally listed threatened or endangered species, federal candidate species, species recognized as requiring special protection by State agencies, and species managed as sensitive species by the FS and/or BLM.

SPECIAL USE PERMIT. A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest System lands for some special purpose.

SPECIES. A unit of classification of plants and animals consisting of the largest and most inclusive array of sexually reproducing and cross-fertilizing individuals which share a common gene pool.

SPECIFIED ROAD. A Forest System Road, including related transportation facilities and appurtenances.

STANDARD. A particular action, level of performance, or threshold specified by the Forest Plan for resource protection or accomplishment of management objectives. Unlike "guidelines" which are optional, standards specified in the Forest Plan are mandatory.

SUBALPINE. A terrestrial community that generally is found in harsher environments than the montane terrestrial community. Subalpine communities are generally colder than montane and support a unique clustering of wildlife species.

SUMMER RANGE. A range, usually at higher elevation, used by deer and elk during the summer; a summer range is usually much more extensive than a winter range.

THERMAL COVER. Vegetation used by animals to modify the adverse effects of weather. A forest stand that is at least 40 feet in height with tree canopy cover of at least 70 percent provides thermal cover. These stand conditions are achieved in closed sapling-pole stands and by all older stands unless the canopy cover is reduced below 70 percent. Deciduous stands may serve as thermal cover in summer, but not in winter.

THREATENED SPECIES. Any species of plant or animal which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

TIERING. The use of a previously written environmental document with a broad scope to cover discussion of issues common to both.

TRIBE. Term used to designate a Federally recognized group of American Indians and their governing body. Tribes may be comprised of more than one band.

UNCLASSIFIED ROADS. Roads on National Forest System lands that are not needed for and not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, off-road vehicle tracks which have not been designated and managed as a trail, and those roads no longer under permit or other authorization.

UNDERSTORY. Vegetation (trees or shrubs) growing under the canopy formed by taller trees.

UPLAND. The portion of the landscape above the valley floor or stream.

VIABLE POPULATIONS. A wildlife population of sufficient size to maintain its existence over time in spite of normal fluctuations in population levels.

VISUAL QUALITY OBJECTIVE (VQO). A system of indicating the potential expectations of the visual resource by considering the frequency an area is viewed and the type of landscape.

Maximum Modification: A Visual Quality Objective meaning man's activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.

Modification: A Visual Quality Objective meaning man's activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Partial Retention: A Visual Quality Objective which, in general, means man's activities may be evident but must remain subordinate to the characteristic landscape.

Preservation: A Visual Quality Objective that provides for ecological change only.

Retention: A Visual Quality Objective which, in general, means man's activities are not evident to the casual forest visitor.

VISUAL RESOURCE. The composite of landforms, water features, vegetative patterns and cultural features which create the visual environment.

VISUAL RESOURCE MANAGEMENT CLASSES. The degree of acceptable visual changes within a characteristic landscape. A class is based upon the physical and sociological characteristics of any given homogenous area and serves as a management objective.

WATERSHED. A region or area bounded peripherally by a water parting and draining ultimately to a particular watercourse.

WEED. A plant considered undesirable, unattractive, or troublesome, usually introduced and growing without intentional cultivation.

WILDERNESS. All lands included in the National Wilderness Preservation System by public law; generally defined as undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation.

WINTER RANGE. A range, usually at lower elevation, used by migratory deer and elk during the winter months; usually better defined and smaller than summer ranges.

ABBREVIATIONS AND ACRONYMS

AIRFA	American Indian Religious Freedom Act
ALT	Alternative
ARPA	Archeological Resources Protection Act
ATV	All Terrain Vehicle
BA	Biological Assessment
BMP	Best Management Practices
BLM	Bureau of Land Management
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulation
DEIS	Draft Environmental Impact Statement and Plan Amendment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EVCC	Existing Visual Condition Class
FEIS	Final Environmental Impact Statement and Proposed Plan Amendment
FLPMA	Federal Land Policy and Management Act
FO	Field Office
FP	Forest Plan
FS	Forest Service
FSH	Forest Service Handbook
FSM	Forest Service Manual
FWS	Fish and Wildlife Service
IDT	Interdisciplinary Team
INFISH	Inland Native Fish Strategy
IRA	Inventoried Roadless Area
MA	Management Area
MIS	Management Indicator Species
MNHP	Montana Natural Heritage Program
NAGPRA	Native American Graves Protection and Repatriation Act.
NEPA	National Environmental Policy Act
NF	National Forest
NFMA	National Forest Management Act
NFS	National Forest System
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHV	Off-Highway Vehicle
PL	Public Law
RAC	Resource Advisory Council
RD	Ranger District
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
RPA	Forest & Rangeland Renewable Resources
RVD	Recreation Visitor Day
SHPO	State Historic Preservation Officer
SUV	Sport Utility Vehicle
SWCP	Soil and Water Conservation Practices
T&E	Threatened and Endangered Species
TES	Threatened, Endangered, and Sensitive Species
USC	United States Code
USDA	United States Department of Agriculture
USDI	United States Department of Interior
USFS	USDA-Forest Service
USFWS	USDI-Fish and Wildlife Service
VMS	Visual Management System
VQO	Visual Quality Objectives
WSA	Wilderness Study Area

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APPENDIX A
EXECUTIVE ORDERS

EXECUTIVE
ORDER 11644

Use of Off-Road Vehicles
on the Public Lands

An estimated 5 million off-road recreational vehicles–motorcycles, minibikes, trail bikes, snowmobiles, dune-buggies, all-terrain vehicles, and others–are in use in the United States today, and their popularity continues to increase rapidly. The widespread use of such vehicles on the public lands–often for legitimate purposes but also in frequent conflict with wise land and resource management practices, environmental values, and other types of recreational activity–has demonstrated the need for a unified Federal policy toward the use of such vehicles on the public lands.

NOW, THEREFORE, by virtue of the authority vested in me as President of the United States by the Constitution of the United States and in furtherance of the purpose and policy of the National Environmental Policy Act of 1969 (42 U.S.C. 4321), it is hereby ordered as follows:

SECTION 1. *Purpose.* It is the purpose of this order to establish policies and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.

SEC. 2 *Definitions.* As used in this order, the term:

(1) "public lands" means (A) all lands under the custody and control of the Secretary of the Interior and the Secretary of Agriculture, except Indian lands, (B) lands under the custody and control of the Tennessee Valley Authority that are situated in western Kentucky and Tennessee and are designated as "Land Between the Lakes," and (C) lands under the custody and control of the Secretary of Defense;

(2) "respective agency head" means the Secretary of the Interior, the Secretary of Defense, the Secretary of Agriculture, and the Board of Directors of the Tennessee Valley Authority, with respect to public lands under the custody and control of each;

(3) "off-road vehicle" means any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (A) any registered motorboat, (B) any military, fire, emergency, or law enforcement vehicle when used for emergency purposes, and (C) any vehicle whose use is expressly authorized by the respective agency head under a permit, lease, license, or contract; and

(4) "official use" means use by an employee, agent, or designated representative of the Federal Government or one of its contractors in the course of his employment, agency, or representation.

SEC 3. *Zones of Use.* (a) Each respective agency head shall develop and issue regulations and administrative instructions, within six months of the date of this order, to provide for administrative designation of the specific areas and trails on public lands on which the use of off-road vehicles may be permitted, and areas in which the use of off-road vehicles may not be permitted, and set a date by which such designation of all public lands shall be completed. Those regulations shall direct that the designation of such areas and trails will be based upon the protection of the resources of the public lands, promotion of the safety of all users of those lands, and minimization of conflicts among the various uses of those lands. The regulations shall further require that the designation of such areas and trails shall be in accordance with the following—

(1) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, or other resources of the public lands.

(2) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats.

(3) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

(4) Areas and trails shall not be located in officially designated Wilderness Areas or Primitive Areas. Areas and trails shall be located in areas of the National Park system, Natural Areas, or National Wildlife Refuges and Game Ranges only if the respective agency head determines that off-road vehicle use in such locations will not adversely affect their natural, aesthetic, or scenic values.

(b) The respective agency head shall ensure adequate opportunity for public participation in the promulgation of such regulations and in the designation of areas and trails under this section.

(c) The limitations on off-road vehicle use imposed under this section shall not apply to official use.

SEC. 4. *Operating Conditions.* Each respective agency head shall develop and publish, within one year of the date of this order, regulations prescribing operating conditions

for off-road vehicles on the public lands. These regulations shall be directed at protecting resource values, preserving public health, safety, and welfare, and minimizing use conflicts.

SEC. 5. *Public Information.* The respective agency head shall ensure that areas and trails where off-road vehicle use is permitted are well marked and shall provide for the publication and distribution of information, including maps, describing such areas and trails and explaining the conditions on vehicle use. He shall seek cooperation of relevant State agencies in the dissemination of this information.

SEC. 6. *Enforcement.* The respective agency head shall, where authorized by law, prescribe appropriate penalties for violation of regulations adopted pursuant to this order, and shall establish procedures for the enforcement of those regulations. To the extent permitted by law, he may enter into agreements with State or local governmental agencies for cooperative enforcement of laws and regulations relating to off-road vehicle use.

SEC. 7. *Consultation.* Before issuing the regulations or administrative instructions required by this order or designating areas or trails as required by this order and those regulations and administrative instructions, the Secretary of the Interior shall, as appropriate, consult with the Atomic Energy Commission.

SEC. 8. *Monitoring of Effects and Review.* (a) The respective agency head shall monitor the effects of the use of off-road vehicles on lands under their jurisdictions. On the basis of the information gathered, they shall from time to time amend or rescind designations of areas or other actions taken pursuant to this order as necessary to further the policy of this order.

(b) The Council on Environmental Quality shall maintain a continuing review of the implementation of this order.

RICHARD NIXON

THE WHITE HOUSE,
February 8, 1972

EXECUTIVE
ORDER 11989

Off-Road Vehicles on Public Lands

By virtue of the authority vested in me by the Constitution and statutes of the United States of America, and as President of the United States of America, in order to clarify agency authority to define zones of use by off-road vehicles on public lands, in furtherance of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*), Executive Order No. 11644 of February 8, 1972, is hereby amended as follows:

SECTION 1. Clause (B) of Section 2(3) of Executive Order No. 11644, setting forth an exclusion from the definition of off-road vehicles, is amended to read "(B) any fire, military, emergency or law enforcement vehicle when used for emergency purposes, and any combat or combat support vehicle when used for national defense purposes, and".

SEC. 2. Add the following new Section to Executive Order No. 11644:

"SEC. 9. *Special Protection of the Public Lands.* (a) Notwithstanding the provisions of Section 3 of this Order, the respective agency head shall, whenever he determines that the use of off-road vehicles will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources of particular areas or trails of the public lands, immediately close such areas or trails to the type of off-road vehicle causing such effects, until such time as he determines that such adverse effects have been eliminated and that measures have been implemented to prevent future recurrence.

(b) Each respective agency head is authorized to adopt the policy that portions of the public lands within his jurisdiction shall be closed to use by off-road vehicles except those areas or trails which are suitable and specifically designated as open to such use pursuant to Section 3 of this Order."

JIMMY CARTER

THE WHITE HOUSE,
May 24, 1977

APPENDIX B

IMPLEMENTING AREA DESIGNATIONS AND GUIDANCE FOR SITE-SPECIFIC PLANNING

INTRODUCTION

Background

The off-highway vehicle (OHV) final environmental impact statement and proposed plan amendment (FEIS) for Montana, North Dakota and portions of South Dakota (excluding the Black Hills National Forest, Buffalo Gap National Grassland and Fort Pierre National Grassland) is a programmatic planning document and is intended to provide the environmental analysis and disclosure needed to amend OHV area designations in Forest Service (FS) land and resource management plans (forest plans) and Bureau of Land Management (BLM) resource management plans. The BLM and FS (referred to as "the agencies") are joint lead agencies responsible for preparation of the FEIS. To the extent possible, the agencies will coordinate the field implementation of the decision.

The FEIS addresses the impacts of motorized wheeled (motorcycles, four-wheel drive vehicles, sport utility vehicles, all-terrain vehicles, etc.) OHV travel on areas currently available to motorized wheeled cross-country travel. It amends forest plan and resource management plan OHV area designations on approximately 15.9 million acres. This designation limits/restricts motorized wheeled cross-country travel yearlong under BLM or FS regulations (43 CFR 8342 or 36 CFR 295). This plan amendment does not change the current limited/restricted yearlong or closed designations, or designated OHV intensive use areas. Site-specific planning would address OHV use on specific roads and trails. Under the preferred alternative, "new" user-created routes are not allowed and would be closed.

The programmatic FEIS is not intended to change existing site-specific direction to close areas or trails to the traffic types causing considerable adverse effects (43 CFR 8341.2 or 36 CFR 295.5). Identifying affected areas or trails may occur through normal administration and monitoring or may be the result of public input.

Planning Process

EIS/Plan Amendment: Planning for units of the National Forest System (NFS) and for BLM lands involves two levels of decision (Figure B.1). The first level, often referred to as programmatic planning, is the development or amendment of forest plans and resource management plans that provide management direction for resource programs, uses, and protection measures. Forest plans and resource management plans and associated amendments are intended to set out management area prescriptions or decisions with goals, objectives, standards, guidelines, terms, and conditions for future decision making through site-specific planning. This includes the designation of areas as closed, open or restricted/limited to motorized wheeled cross-country travel. The environmental analysis accomplished at the plan amendment level guides resource man-

Figure B.1 Decision Levels for Travel Planning

Decision Level One Forest Plans and Resource Management Plans		Decision Level Two Site-Specific Planning At the Local Level
Provides direction for acceptable uses and protection measures. Identifies goals, objectives, standards and guidelines for future decision-making through site-specific planning. Designates areas as closed, open, or limited/restricted to motorized wheeled cross-country travel.	→	Provides analysis of site-specific road and trail management designed to achieve goals and objectives of the forest plan and resource management plan. Includes identification of when and where individual roads and trails would be open or closed to various types of use.

agement decisions on public lands and aids, through the tiering process, environmental analyses for more site-specific proposals. The FEIS is a programmatic document.

Site-Specific Planning: The second level of planning involves the analysis and implementation of management practices designed to achieve goals and objectives of the forest plan and resource management plan. This is commonly referred to as project, activity, or site-specific planning that requires relatively detailed information, including the location, condition, and current uses of individual roads and trails and the identification of when and where individual roads and trails will be open or closed to various types of use. This step is accomplished through the site-specific planning process at the local level, and is dependent on the availability of funds and resources. A prioritized list of areas for site-specific planning would be completed within six months after the signing of the Records of Decision (ROD) for the FEIS.

For the BLM, the prioritization of areas and site-specific planning would be consistent with the final land use planning manual and handbook (Manual 1600 and Handbook H-1600-1) and any future OHV planning policy. This includes the need to make road and trail designations or redesignations through the land use planning process (43 CFR 1600).

PLAN AMENDMENT DECISION - AREA DESIGNATIONS

Introduction

The management direction in the FS ROD would affect forest plans somewhat differently depending on the existing standards and guidelines. Forest access management standards and guidelines would be changed to be consistent with direction from the ROD.

The BLM ROD would amend resource management plans depending on the current OHV area designations. The approval of a resource management plan amendment constitutes formal designation of OHV areas. Public notice of redesignation would be provided through publication of a ROD notice in the Federal Register.

Implementation of plan amendments on NFS and BLM lands would require modifications to current information and enforcement measures. These modifications would include: orders/notices, maps, signs, education/enforcement, and monitoring.

Orders/Notices

Forest Service - Implementing the Montana, North Dakota and South Dakota OHV area designations would require 36 CFR 261.50 orders for each national forest and grassland. These prohibition orders are signed by the Forest Supervisor and should reflect the amended access and travel management for each forest plan. Sample CFR orders can be found in the "Access and Travel Management Northern Region Guide, October 1997." 36 CFR 261.51 and 295.4 require placing a copy of the order in each forest and ranger district office, displaying the order to reasonably bring the prohibition to the attention of the public, and providing information and maps to the public.

Bureau of Land Management - The BLM regulations for OHV's are contained in 43 CFR 8340. After designation or redesignation of public lands, the authorized officer would take action by signing and other appropriate measures to identify designated areas so that the public will be aware of applicable locations and limitations. The authorized officer would make appropriate information material, including maps, available for public review.

Maps

Forest visitor maps, travel maps, BLM recreation maps, or other maps and descriptions distributed to the public would be updated, or an insert prepared, to reflect the direction in the FEIS and ROD. Each national forest, grassland and BLM field office would be responsible for map updates, as soon as practical.

Signs

Signing strategies for Montana, North Dakota and South Dakota are frequently different due to ownership patterns and topography. However, to the extent possible, a consistent approach to signing is desired. Signs should meet Regional/State Office and Manual on Uniform Traffic Control Devices (MUTCD) standards and be maintained in good condition.

Education/Enforcement

Travel restrictions would be enforced with resources available to the FS and BLM. However, it is clear that the success of travel management direction lies in the public understanding its value and generally accepting the restrictions. Education programs with an emphasis on responsible use of OHV's and other forms of backcountry travel are key to developing natural resource ethics.

Monitoring

Monitoring is an important component of implementation of the FEIS and ROD. An OHV Interagency Workgroup has been established that consists of employees from the FS regional office; FS ranger district; BLM state office; BLM field office; Montana Fish, Wildlife and Parks State Trails Coordinator; Montana Department of Natural Resources and Conservation; and representatives from North Dakota and South Dakota. It is the goal of this Interagency Workgroup to provide direction for an OHV program for the States of Montana, North Dakota, and South Dakota. They are to provide long-term strategic coordination for planning OHV use, providing education and training opportunities for the public and agencies, and promoting consistent administration of OHV use in the field. The Interagency Workgroup will provide a coordinated approach for direction to field units on OHV issues at a three-state-wide level. The following subgroups have been established to accomplish this goal: Planning; Education and Training; and Field Management/Implementation. National forests and grasslands, and BLM field offices will assist in this implementation.

One of the responsibilities of the OHV Interagency Workgroup will be to conduct annual joint monitoring trips to review the effects of OHV travel in at least two different eco-regions annually (refer to eco-region map in FEIS – Figure 3.1). Field reviews, as funding allows, will include implementation monitoring to assure that signs are installed and maintained, orders are posted and current, and travel management prescriptions are being enforced. Mapping and other elements of program administration will also be reviewed. Results of these monitoring trips will be presented to the Regional Forester and State Director in the form of a report. The primary focus is to verify that the direction is being applied and enforced on the ground and is minimizing further resource damage, user conflicts, and new user-created roads. Monitoring will track agency progress on signing, mapping, prioritizing areas for site-specific planning and progress toward initiating site-specific planning within the time frame identified for the particular priority. This monitoring is not intended to replace the required monitoring at the field level as directed in 43 CFR 8342.3 and 36 CFR 295.5.

PRIORITIZATION FOR SITE-SPECIFIC PLANNING

Introduction

To insure that site-specific planning is initiated in areas of the most need, areas would be identified by three categories to provide appropriate emphasis for their completion. Priorities for site-specific planning should be coordinated in areas with adjacent BLM and NFS lands. Prioritization for site-specific planning would include delineation of areas and prioritization of areas as high, moderate, or low based on several factors.

Delineation of Areas

Site-specific planning may be analyzed at a number of different scales and across different boundaries, for example by watershed, sub-watershed, agency or field unit. It may also be combined with other planning decision processes such as forest plan revision, project or activity plans, or site-specific access and travel management plans. Selection of the appropriate area size should be based on the level of detailed analysis required and the potential to combine access and travel management planning with other analysis procedures.

Prioritization of Areas

Each BLM field office, national forest and grassland would complete a prioritized list of areas for site-specific planning within six months of the signing of the ROD in close coordination with the public and other partners, such as the Resource Advisory Councils. This list would be submitted to the State Director and Regional Forester.

Factors: When determining the priorities for site-specific planning, the agencies will consider the effects of the FEIS; Executive Orders 11644 and 11989; coordination with the public, other partners, agencies, and tribal governments; and the factors listed below:

- Opportunity to provide a variety of OHV recreational experiences, while minimizing resource damage and conflicts.
- Risk of, or current damage to soil, watersheds, vegetation or other natural, cultural, and historical resources on BLM and NFS lands.
- Potential to spread noxious weeds.
- Avoidance of riparian/wetland areas.
- Need to minimize harassment of wildlife or significant degradation of wildlife habitats.
- Concern for safety of all users.
- Resolution of conflict between interim travel restrictions and established management plans.

- History of new roads and trails being created by users.
- Current or potential impacts to federally listed threatened or endangered, and sensitive species.
- Opportunities to join other planning efforts.
- Special Management Areas.

Categories: For each BLM field office, national forest and grassland, all areas in the affected environment should be included in one of the following categories:

HIGH PRIORITY AREAS - These areas currently have a high level of OHV use that has resulted in resource damage and/or user conflicts. There is a need to address all or most of the factors listed above, in particular resource damage; threatened or endangered, and sensitive species; and public safety. Site-specific planning would be initiated within two years of the resolution of any protests to the FEIS or administrative appeals to the ROD.

MODERATE PRIORITY AREAS - These areas may address some of the factors listed above, as well as identifying areas that could provide OHV opportunities and at the same time minimize user conflicts and resource damage. Site-specific planning would be initiated within five years of the resolution of any protests to the FEIS or administrative appeals to the ROD.

LOW PRIORITY AREAS - These are the remaining areas categorized with minimal OHV use, with the exception of hunting seasons, and are somewhat remote. There may be some localized resource problems, but these problems can be easily rectified with emergency closures until they are resolved. There are no specific requirements for initiation of site-specific planning.

SITE-SPECIFIC PLANNING - ROAD AND TRAIL DESIGNATIONS

Introduction

Travel planning is a key element of the overall land use planning process. The land use planning process is the primary planning vehicle for identifying a travel and transportation system designed to effectively and efficiently meet resource management and visitor services needs. Travel plans identify existing transportation routes and related facilities; indicate changes in the status of existing routes and areas; and address needed improvements, maintenance levels and legal access needs. These plans address all modes of transportation, require an interdisciplinary approach, and seek active public involvement. The travel and transportation component is essential to the successful implementation of the overall resource management plan/forest plan and related activity level plans.

After the plan amendment is completed, the BLM field offices and FS ranger districts would continue with ongoing travel management plans, and develop new travel management plans for geographical areas at the appropriate scale or level (i.e., landscape analysis, watershed plans, or activity plans). The development of site-specific plans is dependent on the availability of funds and resources. The level of detail and the types of decisions needed determines the type of plan and related decision documents. Travel planning and decisions can be accomplished as an individual activity plan or completed as part of a larger multi-program plan or large-scale integrated comprehensive landscape level plan.

At this planning level, agencies are seeking to balance access needs of motorized and non-motorized users while maintaining the natural resources for future generations. During this site-specific planning, roads and trails would be analyzed and identified as open or closed to various types of use.

Public involvement is a key component of each step in the site-specific planning process. An environmental analysis is an integral part of each site-specific plan.

Road/Trail Inventory

Through site-specific planning, roads and trails would be inventoried, mapped and designated as open, seasonally open, or closed. The inventory should be commensurate with the analysis needs, issues, desired resource conditions and resource management objectives for the area. This inventory may include system roads and trails, unclassified roads and trails, non-system trails, and roads and trails on existing visitor/recreation maps and transportation plans.

Site-specific planning would identify appropriate road and trail locations and types of allowable use based on forest plan and resource management plan desired conditions and management objectives. In addition, site-specific planning may identify areas for trail construction and/or improvement, or specific areas where intensive OHV use may be appropriate. Integration of other resource objectives and other types of recreational use would be incorporated at this time.

User Needs

Site-specific planning would identify issues needing resolution at the site-specific level. The following procedure would be followed:

1. Define the scope of the analysis. The boundaries of the area to be analyzed would be the prioritized areas for site-specific planning. As part of the travel planning initiation, the agencies must also provide direction for the types of vehicle travel to be analyzed and the seasons of use to be considered.

2. Identify and describe vehicle travel needs on individual roads and trails. Consider the reasons for needing access to the area, what travel mode is needed or desired, and why people choose to participate in a specific activity in a particular place. Is access needed for:

    - meeting management objectives? (recreation opportunities and demand)
    - commodity production?
    - water production?
    - tribal treaty rights?
    - special use permits? (concessionaires, communication sites, utility corridors)
    - rights-of-way, legal access, easements, cost-share, or prescriptive rights?
    - ad hoc communities, subdivisions, or private in holdings?
    - hazardous waste remediation or watershed restoration?
    - fire protection or law enforcement?
    - barrier-free recreation opportunities or special access accommodations as needed by individuals?
    - other access needs?

3. Identify and describe needs or reasons to limit travel on individual roads and trails. Consider the potential effects of different uses on:

    - wildlife habitat
    - water quality
    - threatened and endangered species habitat
    - cultural resources
    - native vegetation
    - facility protection
    - public safety
    - conflicting uses
    - tribal treaty rights
    - special management areas
    - other access restriction needs

Development of Alternatives

Travel planning alternatives should reflect a range of distribution strategies for agency and public land users. The distribution strategies must balance requirements for travel restrictions with the needs for vehicle travel. They must also address the forest plan or resource management plan objectives for the area. Travel planning prescriptions should be developed for roads, trails and areas within the analysis area.

Decision - Permanent Transportation System

Completion of site-specific planning for an area will establish a permanent transportation system for that particular area through the designation of roads and trails open, open seasonally, or closed for a particular use.

APPENDIX C

BIOLOGICAL ASSESSMENT

of

Effects to Threatened and Endangered Species

from

Proposed Management Changes in
Off-Highway Vehicle (OHV)
Area Designations

on

Public Lands Administered by the
Bureau of Land Management and
Forest Service Northern Region in
Montana, North Dakota, and South Dakota

December 6, 2000

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EXECUTIVE SUMMARY

Federal agencies are required to comply with provisions of the Endangered Species Act of 1973, as amended (ESA). This includes a requirement to "consult" with the Fish and Wildlife Service (FWS) on any action that may affect species listed as threatened and endangered (T&E) or result in destruction or adverse modification of habitat designated as critical for listed species. In addition, federal agencies must "confer" with FWS on any action that is likely to jeopardize the continued existence of any species proposed to be listed or any action that may result in the destruction or adverse modification of critical habitat proposed to be designated for listed species.

The purpose of this programmatic Biological Assessment (BA) is to document potential effects from the Preferred Alternative (i.e. changes in off-highway vehicle (OHV) use on public lands administered by the Bureau of Land Management (BLM) and National Forest System (NFS) lands administered by the Forest Service Northern Region (FS) in Montana, North Dakota, and portions of South Dakota) on individuals, populations, and critical habitat of federally threatened, endangered, and proposed species.

This BA is intended to ensure that management decisions can be made with the most current scientific knowledge concerning these species. The primary purpose for this programmatic BA is to document the effects of the Preferred Alternative. Focus for this BA is to determine if the Preferred Alternative (i.e. restricting motorized wheeled cross-country travel) would have an effect on any federally listed or proposed species. The BA will also provide a basis for forest plan and resource management plan amendments.

Consultation History

In the process of evaluating the effects of the preferred alternative on listed and proposed species, the action agencies (BLM and FS) indicated in the draft environmental impact statement and plan amendment of November 1999 (DEIS) that there would be "no effect" to many of the species reviewed. Subsequent conversations with the FWS and further evaluation made the agencies realize that sufficient species information on such a large area and program-level action was not available to support a "no effect" determination for many of these species.

As a result of public comments, internal review and informal consultation with the FWS, the action agencies have selected a Preferred Alternative (Alternative 5) for the final environmental impact statement and proposed plan amendment (FEIS). The action agencies believe the Preferred Alternative, as currently stated, **May Affect, but Is Not Likely to Adversely Affect** some of the listed species that occur in the analysis area. For some of the species there is still a no effect finding and there would also be positive effects for some of the species.

Thus, changes have been made for many of the "No Effect" determinations in the DEIS to "May Affect, Not Likely to Adversely Affect" in the FEIS.

Species Considered

On March 31, 1999, the action agencies requested a list of threatened and endangered (T&E) species from the FWS for the preparation of the EIS and plan amendment. This list was provided and is shown in the DEIS Appendix E.

Since that time the peregrine falcon was delisted, the Canada lynx was listed as threatened, and the Spalding's catchfly was proposed for listing. A review by FWS, of the current list, was recently requested. Written verification was received from the North Dakota field office and verbal verification was received from the South Dakota and Montana field offices. The following represents the current list of species considered under ESA for effects.

Seventeen species which may occur, are presently known to occur, or historically occurred in the analysis area are included in this evaluation. Seven are **Endangered**, eight are **Threatened**, and two are **Proposed for Listing**. These species are as follows:

Endangered

- Least tern (*Sterna antillarum*)
- Whooping crane *(Grus americana*)
- Black-footed ferret (*Mustela nigripes*)
- Gray wolf (*Canis lupus*)
- Pallid sturgeon (*Scaphirhvnchus albus*)
- White sturgeon (*Acipenser transmontanus*)
- American burying beetle (*Nicrophorus americanus*)

Threatened

- Bald eagle (*Haliaeetus leucocephalus*)
- Piping plover (*Charadrius melodus*)
- Canada lynx (*Lynx canadensis*)
- Grizzly bear (*Ursus arctos horribilis*)
- Bull trout (*Salvelinus confluentus*)
- Ute ladies' tresses (*Spiranthes diluvialis*)
- Water howellia (*Howellia aquatilis*)
- Western prairie fringed orchid (*Platanthera praeclara*)

Proposed for Listing

- Mountain plover (*Charadrius montanus*), proposed as threatened
- Spalding's catchfly (*silene spaldingii*), proposed as threatened

Summary of Potential Effects

This assessment is of a programmatic nature to address effects from the proposed broad-scale direction provided through this change in current land management direction (i.e. restricted/limited area designations). This analysis is not intended to address effects from continued use on open roads and trails. The Preferred Alternative is to restrict motorized wheeled cross-country travel. This BA makes a determination of potential effects to T&E species from implementation of the Preferred Alternative.

Site-specific planning efforts (e.g. activity plans/travel management plans) would be prepared in the future for individual administrative units. These future actions will require site-specific environmental assessments and, if necessary, associated biological assessments for T&E species.

Some of the most prevalent effects to T&E species from OHV's have resulted from the spread of noxious weeds (competition to native plants and reduced quality of wildlife habitat) and increased miles (resulting in a higher density) of user-created roads. The Preferred Alternative would reduce these effects by prohibiting or otherwise limiting motorized wheeled cross-country travel.

Other ongoing associated activities have existing management direction, standards, and/or guidelines that can mitigate effects and promote recovery efforts. Agencies currently have the authority to immediately close any area, road or trail where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, threatened or endangered species, or other resources (43 CFR 8341.2 and 8364.1 and 36 CFR 295.2 and 295.5). T&E habitats and riparian/wetland areas are priority areas for protection. Agencies are required to follow T&E species Recovery Plans and Conservation Strategies. If a T&E plant or animal is being negatively affected by vehicles either on or off-road, the local agency manager is obligated to take action to stop that threat.

Effects Determination by Species

NO EFFECTS

Least tern
A ***No Effect*** determination is made for the least tern.

Rationale: No Effect - There is no known nesting or roosting occurring on BLM or NFS lands in the analysis area. Favorite nesting sites for this endangered species include bare ground (recent alluvium) on islands. One island in the Yellowstone River, adjacent to public land, contains a colony of nesting least terns. Foraging may occur in certain river systems that are administered by BLM; however, the Preferred Alternative does not affect foraging habitat.

The Preferred Alternative would restrict motorized wheeled cross-country travel and eliminate any potential direct or indirect effects to the least tern or its habitat. There would be no cumulative effects from the Preferred Alternative. There could be potential long-term beneficial effects but a Beneficial Effect determination would be presumptuous at this time.

Whooping crane
A ***No Effect*** determination is made for the whooping crane.

Rationale: No Effect - Whooping cranes migrate over the analysis area and potential habitat exists but there has been no documented nesting, roosting, or foraging occurring on BLM or NFS lands in the analysis area. OHV use has not been identified as a threat to the whooping crane and the Preferred Alternative to restrict motorized wheeled cross-country travel would reduce or eliminate any potential direct, indirect, or cumulative effects to the species from motorized wheeled cross-country travel.

There could be some positive effects to the species by reducing potential disturbance and/or displacement of animals should they occur in the future. This is somewhat unlikely and it is more likely that the Preferred Alternative would result in neutral effects to the species.

Pallid sturgeon
A ***No Effect*** determination is made for the pallid sturgeon.

Rationale: No Effect - This endangered species is well adapted for life at the bottom of swift, large, turbid and free flowing rivers. "On the mainstream of the Missouri River, approximately 36% of riverine habitat within the pallid sturgeon's range was eliminated by construction of six massive earthen dams between 1926 and 1952 and another 40% has been channelized. The remaining 24% has been altered due to changes in water flows caused by dam operations" (Dryer and Sandoval 1993).

Because of the great size of the rivers that pallid sturgeons inhabit, the typical water depths in which they have been found, and the apparent minimal effects to water quality of motorized wheeled cross-country travel reported across the region, it is not believed that such travel, at the current levels, would further compromise the status of the pallid sturgeon.

Recovery actions to protect and restore pallid sturgeon populations are outlined in the 1993 Recovery Plan. The

Preferred Alternative is consistent with this recovery plan direction.

The Preferred Alternative to restrict motorized wheeled cross-country travel should reduce any potential indirect effects to water quality from motorized wheeled cross-country travel and could have some minimal positive effects. There would be no cumulative effects from the Preferred Alternative.

White sturgeon
A ***No Effect*** determination is made for the white sturgeon.

Rationale: No Effect - This endangered species occurs in the Columbia River system and its major tributary that is within the analysis area, the Kootenai River. It has been documented that the decline of the Kootenai River white sturgeon is primarily a result of impoundments and exploitation (USDI 1999a).

Because of the apparent minimal effects to water quality of motorized wheeled cross-country travel reported across the region, it is not believed that such travel, at the current levels, would further compromise the status of the white sturgeon.

The Preferred Alternative to restrict motorized wheeled cross-country travel should reduce potential effects to water quality from motorized wheeled cross-country travel and could have some minimal positive effects.

American burying beetle
A ***No Effect*** determination is made for the American burying beetle.

Rationale: No Effect - This endangered species is very rare and listed only for the South Dakota portion of the analysis area. There is no documented occurrence of the species on BLM or NFS lands in South Dakota.

Suitable habitat for the beetle is any site with significant humus or topsoil for burying carrion (USFWS 1995). The Preferred Alternative would restrict or limit motorized wheeled travel to existing trails and roads, which would be lacking these habitat conditions. Therefore, the Preferred Alternative should reduce or eliminate potential direct, indirect, or cumulative effects to the species from motorized wheeled cross-country travel.

Ute ladies' tresses
A ***No Effect*** determination is made for the Ute ladies' tresses

Rationale: No Effect - None of the 11 occurrences in Montana are on BLM or NFS lands. They are in a four-county area of the Jefferson River and confluent lower reaches of the Beaverhead, Gallatin, Madison and Ruby Rivers. Intensive surveys were conducted for this species, primarily for the purpose of delimiting the range of distribution in Montana, including the most likely BLM and NFS lands. No occupied habitat was found on BLM or NFS lands (B. Heidel, pers. comm. 2000).

The likelihood of this species occurring on federal lands is extremely low and no effects from motorized wheeled cross-country travel are known or anticipated to occur. The Preferred Alternative would restrict or limit wheeled motorized travel to existing trails and roads, which would further reduce or eliminate any potential direct, indirect, or cumulative effects to the species from motorized wheeled cross-country travel.

Water howellia
A ***No Effect*** determination is made for the water howellia

Rationale: No Effect - This threatened plant species occurs as a submerged or floating annual associated with lakes and ponds. The habitat of this plant is not conducive to OHV traffic, and there would be no direct, indirect, or cumulative effects to the species from motorized wheeled cross-country travel.

Western prairie fringed orchid
A ***No Effect*** determination is made for the western prairie fringed orchid

Rationale: No Effect - This species is associated with sedge meadows, primarily within the tallgrass prairie. It occurs in the sandhills habitat association on the Sheyenne National Grassland.

The following mitigation measures for the western prairie fringed orchid would apply:

1. Motorized wheeled cross-country travel for FS official administrative business would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.

2. Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.

With the above mitigation measures there would be no direct, indirect, or cumulative effects to the species.

MAY AFFECT - NOT LIKELY TO ADVERSELY AFFECT

General - The Preferred Alternative would lessen the direct and indirect effects associated with motorized wheeled cross-country travel; however, motorized wheeled cross-country travel could still be allowed under special exceptions. These exceptions include motorized wheeled cross-country travel for: any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes; disabled access per the Rehabilitation Act of 1973; BLM and FS administrative purposes; travel for lessees and permittees limited to the administration of a federal lease or permit; and personal use permits such as firewood and Christmas tree cutting which could be allowed in specific areas identified at the local level (BLM field office or FS ranger district).

Black-footed ferret

A ***May Affect - Not Likely To Adversely Affect*** determination is made for the black-footed ferret.

Rationale: Not Likely to Adversely Affect - The endangered black-footed ferret is one of the most imperiled mammals in the world and certainly the most endangered mammal in North America. Prairie dog colonies are considered key to the survival and recovery of the endangered black-footed ferret. Burrows provide shelter and the prairie dog itself is food for the ferret. Large prairie dog colonies or complexes are needed for ferret survival, and this is the reason Phillips County was chosen as Montana's reintroduction area.

In 1994, ferrets were reintroduced onto the UL Bend/C.M. Russell National Wildlife Refuge in Montana under a nonessential experimental population designation. According to the FWS, 41 ferrets were counted on the C.M.R. during the fall of 1998 (R. Matchette, pers. comm. 1999). In 1997, ferrets were first released on the Fort Belknap Indian Reservation in Montana and in 2000, black-footed ferrets were first released on the Cheyenne River Sioux Reservation in South Dakota.

In 1992, a disease believed to be sylvatic plague erupted in the Phillips County area and by 1996, as much as 80 percent of the prairie dog population had been lost. In the past, these prairie dog towns in Phillips County have been an important area to sport shooters. In 1999, because of declines in prairie dogs numbers as a result of disease, BLM issued a shooting closure on prairie dog towns in portions of southern Phillips County.

Although no black-footed ferrets have been released or are known to occur on BLM or NFS lands in the analysis area, BLM lands are in close proximity to occupied habitat on the Fort Belknap Reservation and the UL Bend area of the C.M. Russell National Wildlife Refuge. In addition, BLM lands in Phillips County are still very high priority for reintroduction to aid in the recovery of this species.

Although the direct and indirect effects from motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued motorized wheeled cross-country travel as allowed under the exceptions cited above. In addition, when considered with other ongoing or foreseeable future actions on private, local, state, and/or tribal lands the cumulative effects may lead to insignificant or discountable effects to the black-footed ferret should they occur on NFS or BLM lands.

Gray wolf

A ***May Affect - Not Likely To Adversely Affect*** determination is made for the grey wolf.

Rationale: Not Likely to Adversely Affect - Increases in gray wolf numbers, expansion of the species' occupied range, and progress toward achieving the reclassification and delisting criteria of at least two approved gray wolf recovery plans (Great Lakes and Northern Rocky Mountain) have led to a proposed downlisting of this species throughout most of its range, including Montana, North Dakota and South Dakota.

Although the direct and indirect effects from Motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued Motorized wheeled cross-country travel as allowed under the exceptions cited above. In addition, when considered with other ongoing or foreseeable future actions on private, local, state, and/or tribal lands the cumulative effects may lead to insignificant or discountable effects to the grey wolf.

Bald eagle

A ***May Affect - Not Likely To Adversely Affect*** determination is made for the bald eagle.

Rationale: No Effect - This threatened species is a migrant in North Dakota and South Dakota and occurs year-round in Montana. In 1978, only 12 breeding pairs were known in Montana (Servheen 1978). Spring counts in 1998 totaled 248 nests, which exceeds the state recovery goals (D. Flath, pers. comm. 1999). As a result of significant gains in breeding numbers throughout the species range, the FWS issued a proposed rule to delist the bald eagle in July of 1999.

The current condition is apparently providing suitable conditions for the recovery of the species, as evidenced by

the proposed rule to delist the species. Specific bald eagle management direction to promote recovery is provided in the July 1994 Montana Bald Eagle Management Plan. Specific direction is provided to eliminate potential threat to nesting bald eagles through the use of nest site management zones. These zones have various levels of restricted use. Agencies are required to follow T&E species Recovery Plans and Conservation Strategies.

The Preferred Alternative which restricts or limits motorized wheeled cross-country travel would reduce potential direct, indirect, or cumulative effects to the species by eliminating use in the nest site management zones. If user-created routes in these zones exist or are discovered, the FS and BLM would take actions to comply with the Bald Eagle Management Plan. Although the direct and indirect effects from motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued motorized wheeled cross-country travel as allowed under the exceptions. In addition, there could be some positive effects by reducing potential disturbance and/or displacement of nesting or roosting eagles.

Piping plover

A ***May Affect - Not Likely To Adversely Affect*** determination is made for the piping plover.

Rationale: Not Likely to Adversely Affect - In the Northern Great Plains this threatened species breeds along major rivers and wetlands from Saskatchewan and Manitoba through Nebraska. On rivers, plovers primarily nest on sand beaches, flats, pebble beaches, and drained floodplains. In Montana, nesting habitat is primarily unvegetated sand-pebble beaches or islands. In North Dakota, they have also been documented on saline wetlands. Both habitats occur on BLM lands but the amount of habitat on NFS and BLM is limited.

There are no known occurrences on any NFS or BLM lands in North Dakota and South Dakota. One piping plover nest has been documented in Montana on a 16-acre parcel of BLM land in the Miles City Field Office area, which has been designated an Area of Critical Environmental Concern for the piping plover.

Although the direct and indirect effects from Motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued Motorized wheeled cross-country travel as allowed under the exceptions cited above. In addition, when considered with other ongoing or foreseeable future actions on private, local, state, and/or tribal lands the cumulative effects may lead to insignificant or discountable effects to the piping plover.

Canada lynx

A ***May Affect - Not Likely To Adversely Affect*** determination is made for the Canada lynx.

Rationale: Not Likely to Adversely Affect - The Canada lynx was recently listed (July 24, 2000 final rule) as threatened. In Montana, lynx are known to occur in the western montane forests. Snowshoe hares are the primary prey of lynx, although diet can be more varied in the summer than the winter.

Recent studies indicated that lynx show no preference or avoidance of unpaved forest roads and road density does not appear to affect lynx habitat selection (McKelvey et al. 2000). However, relocation of lynx to historic habitats (reintroduction) both in the Adirondack Mountains of New York and more recently in Colorado, resulted in mortality from vehicle collision. Direct and indirect effects from use by OHV's during the non-winter period when snow is not present are believed to be insignificant or discountable and probably have very little, if any, effect on lynx.

Although these direct and indirect effects from Motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued Motorized wheeled cross-country travel as allowed under the exceptions cited above. In addition, when considered with other ongoing or foreseeable future actions on private, local, state, and/or tribal lands the cumulative effects may lead to insignificant or discountable effects to the Canada lynx.

Grizzly bear

A ***May Affect - Not Likely To Adversely Affect*** determination is made for the grizzly bear.

Rationale: Not Likely to Adversely Affect - Within the project area, this species occurs in the Northern Continental Divide Ecosystem of western Montana, the Yellowstone Ecosystem that includes southwestern Montana and portions of Wyoming and Idaho (essentially centered in Yellowstone National Park), and some limited grizzly bear occupancy in the Selkirk-Cabinet-Yaak Mountains of Montana. A recent proposal has been made to reintroduce grizzly bears into the Selway-Bitterroot.

Grizzlies are opportunistic and omnivorous and feed on animal or vegetable matter. Herbaceous plants are utilized, as are ground squirrels, carrion, garbage, ungulates, roots, fruits, berries, tubers, fungi, pine nuts, and even tree cambium. Bears occasionally prey on livestock and also are attracted to bone yards and dead livestock. Many bear foods, both animal and vegetable, occur in riparian and wetland areas, with some of the berry-producing shrubs occurring in the uplands.

Large areas of relatively undisturbed land with food, cover, denning habitat, solitude, and space are important for effective grizzly bear habitat (Interagency Grizzly Bear Committee 1987, Craighead et al. 1982). Recreational activity may diminish the value of habitat for grizzly bears through modification or displacement (Joslin and Youmans 1999). The Grizzly Bear Recovery Plan (USDI 1993) identifies human depredation, competitive use of habitat, and livestock grazing as sources of conflict.

Numerous studies have shown that grizzly bears are negatively affected by increased road density or increased use of roads within a bear's home range. Although no evidence is available to document the effects from off-road/trail vehicle travel, it is logical to assume that vehicle activity, whether on or off-road, would negatively effect grizzly bears.

The analysis of effects to grizzly bear habitat includes an assessment of impacts to core (secure) areas. Core areas are partially defined by the lack of open roads. Roads may be present in the core area but they are closed to vehicle traffic. In addition to the current restriction, that does not allow motorized vehicle travel on roads and trails in the core area, this action (Preferred Alternative) would further restrict motorized wheeled cross-country travel in core areas as well as outside the core areas. This action would provide additional security for grizzly bears.

Further, road and trail access is managed to conserve grizzly bear habitat outside the core areas. Open and total route densities are limited in these areas to protect grizzly bears. The preferred alternative would restrict all cross-country motorized use to existing roads and trails which will reduce off-road/trail disturbance to grizzly bears. According to IGBC guidance (IGBC 1994, 1998) all roads or tails receiving motorized use should be counted in open motorized route densities. Therefore, if user-created routes outside core areas exist or are discovered, the FS and BLM would take actions to make such routes inaccessible to motorized use or the routes would be included in access density calculations and thereby subject to appropriate access limitations.

Effects from the Preferred Alternative are not likely to adversely affect the grizzly bear and, in fact, would likely be positive/beneficial as motorized wheeled cross-country travel would be prohibited or restricted, further protecting grizzly bear habitat from human disturbance.

Bull trout

A ***May Affect - Not Likely To Adversely Affect*** determination is made for the bull trout.

Rationale: Not Likely to Adversely Affect - This threatened species occurs within the Columbia River basin and, in Montana, the majority of spawning occurs in a small percentage of the total stream habitat available. Proximity of cover for adult fish before and during spawning is an important habitat component. Spawning tends to be concentrated in reaches influenced by groundwater where temperature and flow conditions may be more stable. Groundwater influence plays a large role in embryo development and survival by mitigating mortality factors. Rearing habitat requirements for juvenile bull trout include cold summer water temperatures (15 degrees C) provided by sufficient surface and groundwater flows. Highly variable streamflow, reduction in large woody debris, bedload movement, and other forms of channel instability can limit the distribution and abundance of juvenile bull trout. Open migratory corridors, both within and among tributary streams, larger rivers, and lake systems are critical for maintaining bull trout populations.

Although the direct and indirect effects from motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued motorized wheeled cross-country travel as allowed under the exceptions cited above. In addition, when considered with other ongoing or foreseeable future actions on private, local, state, and/or tribal lands the cumulative effects may lead to insignificant or discountable effects to the bull trout.

NOT LIKELY TO JEOPARDIZE THE CONTINUED EXISTENCE

For the following proposed species, a determination of effects is made in addition to making a determination of jeopardy. Should the mountain plover and/or Spalding's catchfly be found to warrant listing under the ESA and subsequently be listed as a threatened species, the determination of effects in this document could be informally consulted on. This could eliminate the need to reinitiate consultation for this action should the FWS list either species.

Mountain plover

A ***Not Likely to Jeopardize the Continued Existence*** determination is made for the mountain plover.

Rationale: Not Likely to Jeopardize the Continued Existence - Effects from the proposed action would not adversely affect the mountain plover (see May Affect determination below) and therefore would not likely jeopardize the continued existence of the species.

Mountain plover
A ***May Affect - Not Likely To Adversely Affect*** determination is made for the mountain plover.

Rationale: Not Likely to Adversely Affect - This species is proposed to be listed as threatened. Within the analysis area, mountain plovers primarily occur on the shortgrass prairie of eastern Montana. Knowles and Knowles (2000) summarized their survey of mountain plovers from 1991-1998 for Montana east of the continental divide. Mountain plovers were found at nine distinct areas. They were closely associated with sites characterized by slopes under 5%, vegetative height under 6 cm, and greater than half the soil surface being bare ground, lichen and/or club moss. Often they are associated with prairie dog colonies.

Recent developments in conservation strategies for black-tailed prairie dog management identified the importance of this keystone species to several closely associated species, including the mountain plover. Any actions that contribute to the conservation of the black-tailed prairie dog will undoubtedly benefit the mountain plover.

The Preferred Alternative to restrict motorized wheeled cross-country travel should reduce or eliminate potential direct and indirect effects to the black-tailed prairie dog from motorized wheeled cross-country travel. This should indirectly benefit the mountain plover.

Although the direct and indirect effects to mountain plover from motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued motorized wheeled cross-country travel as allowed under the exceptions cited above. These could include disturbance and displacement but would not likely adversely affect the species.

When considered with other ongoing or foreseeable future actions on private, local, state, and/or tribal lands this proposed action would not significantly contribute to the cumulative effects.

Spalding's catchfly
A ***Not Likely to Jeopardize the Continued Existence*** determination is made for Spalding's catchfly.

Rationale: Not Likely to Jeopardize the Continued Existence - Effects from the proposed action would not adversely affect the Spalding's catchfly (see May Affect determination below) and therefore would not likely jeopardize the continued existence of the species.

Spalding's catchfly
A ***May Affect - Not Likely To Adversely Affect*** determination is made for the Spalding's catchfly.

Rationale: Not Likely to Adversely Affect - Currently proposed as threatened, this species is known from a total of 52 populations distributed across Washington, Oregon, Idaho, Montana, and British Columbia. The habitat is primarily restricted to moist grasslands that make up the Palouse region in southeastern Washington, northwestern Montana and adjacent portions of British Columbia, Idaho and Oregon.

Within the analysis area, none of the known populations of Spalding's catchfly occur on NFS or BLM lands. However, one of the largest populations occurs in Eureka, Montana in close proximity to NFS lands and other populations in Montana also occur near federal lands. The probability that this species occurs on federal lands is moderate. Past surveys for this species have been conducted on the Kootenai and Flathead National Forests without detecting the species. Future surveys of potential habitat on NFS and BLM lands will be needed to determine the extent of this species.

The Preferred Alternative to restrict motorized wheeled cross-country travel should reduce or eliminate potential direct and indirect effects to Spalding's catchfly from motorized wheeled cross-country travel.

Although the direct and indirect effects to Spalding's catchfly from motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued motorized wheeled cross-country travel as allowed under the exceptions cited above.

When considered with other ongoing or foreseeable future actions on private, local, state, and/or tribal lands this proposed action would not significantly contribute to the cumulative effects.

Summary of Effects to Species

NO EFFECT

Least tern (*Sterna antillarum*), endangered
Whooping crane *(Grus americana*), endangered
Pallid sturgeon (*Scaphirhvnchus albus*), endangered
White sturgeon (*Acipenser transmontanus*), endangered
American burying beetle (*Nicrophorus americanus*), endangered
Water howellia (*Howellia aquatilis*), threatened
Ute ladies' tresses (*Spiranthes diluvialis*), threatened
Western prairie fringed orchid (*Platanthera praeclara*), threatened

MAY AFFECT - NOT LIKELY TO ADVERSELY AFFECT

Black-footed ferret (*Mustela nigripes*), endangered
Gray wolf (*Canis lupus*), endangered
Bald eagle (*Haliaeetus leucocephalus*), threatened
Piping plover (*Charadrius melodus*), threatened
Canada lynx (*Lynx canadensis*), threatened
Grizzly bear (*Ursus arctos horribilis*), threatened
Bull trout (*Salvelinus confluentus*), threatened
Mountain plover (*Charadrius montanus*), proposed as threatened (this determination would be made if the final rule is to list the Mountain plover as threatened)
Spalding's catchfly (*Silene spaldingii*), proposed as threatened (this determination would be made if the final rule is to list Spalding's catchfly as threatened)

NOT LIKELY TO JEOPARDIZE THE CONTINUED EXISTENCE

Mountain plover (*Charadrius montanus*), proposed as threatened
Spalding's catchfly (*Silene spaldingii*), proposed as threatened

BIOLOGICAL ASSESSMENT

Purpose and Need

Federal agencies are required to comply with provisions of the Endangered Species Act of 1973, as amended (ESA). This includes a requirement to "consult" with the Fish and Wildlife Service (FWS) on any action that may affect species listed as threatened and endangered (T&E) or result in destruction or adverse modification of habitat designated as critical for listed species. In addition, federal agencies must "confer" with FWS on any action that is likely to jeopardize the continued existence of any species proposed to be listed or any action that may result in the destruction or adverse modification of critical habitat proposed to be designated for listed species.

The purpose of this programmatic Biological Assessment (BA) is to document potential effects of continued implementation of the Preferred Alternative on individuals or populations of: federally endangered, federally threatened, and species proposed for federal listing. This BA is intended to document effects of management decisions using the most current knowledge available concerning these species.

The objectives of this BA are to:

1. Comply with requirements of the ESA, as amended, that actions by federal agencies (in this case, the Bureau of Land Management (BLM) and Forest Service Northern Region (FS)) not jeopardize the existence of these species or adversely modify their critical habitat.

2. Assess the effects that implementation of the Preferred Alternative will have on threatened and endangered species known or suspected to exist on or near the analysis area.

3. Document current standards and guidelines prescribed in the Preferred Alternative that benefit these species.

4. Provide biological input to ensure action agencies' compliance with the Federal Land Policy and Management Act (FLPMA), National Forest Management Act (NFMA), BLM Manual 6840, Forest Service Manual 2670, National Environmental Policy Act (NEPA), and the Endangered Species Act (ESA), as amended.

The primary focus for this programmatic BA is to document the effects of the Preferred Alternative.

Proposed Action - FEIS Alternative 5 (Preferred Alternative)

This alternative was developed in response to comments on the draft environmental impact statement and plan amendment (DEIS) from the public and other agencies. It restricts motorized wheeled cross-country travel throughout the analysis area to protect riparian areas, wetlands, crucial wildlife habitat, threatened or endangered species, soils and vegetation, aquatic resources, and to reduce user conflicts.

The BLM and FS regulations (43 CFR 8341.2 and 8364.1 and 36 CFR 295.2 and 295.5) allow for area, road or trail closures where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, threatened or endangered species, other authorized uses, or other resources. The authorized officer can immediately close the areas affected until the effects are eliminated and measures are implemented to prevent future recurrence.

The BLM and FS would restrict motorized wheeled cross-country travel yearlong (Map 1 in the FEIS). These lands, approximately 16 million acres, would be designated limited or restricted yearlong for motorized wheeled cross-country travel under BLM or FS regulations (43 CFR 8342 or 36 CFR 295). The appropriate forest plan and resource management plan would be amended by this alternative.

Through subsequent site-specific planning, the BLM and FS would designate roads and trails for motorized use. With public involvement the agencies would continue with

ongoing travel management plans and develop new travel management plans (i.e., landscape analysis, watershed plans, or activity plans) for geographical areas. Through site-specific planning, roads and trails would be inventoried, mapped, and analyzed to the degree necessary to evaluate and designate the roads and trails as open, seasonally open, or closed. The inventory would be commensurate with the analysis needs, issues, and desired resource conditions based on forest plan or resource management plan objectives for the analysis area.

Site-specific planning could include identifying opportunities for trail construction and/or improvement, or specific areas where intensive OHV use may be appropriate. A change in area designations from limited/restricted to open would require a plan amendment. Implementation and monitoring are described in Appendix B of the FEIS. Implementation includes prioritizing areas for site-specific planning within six months of the respective agencies' Record of Decision based on the resources in the area, such as riparian areas and threatened or endangered species, along with opportunities for recreational OHV use.

The agencies recognize there are some valid needs for motorized wheeled cross-country travel. However, when driving cross-country individuals should avoid riparian areas, avoid steep slopes, wash vehicles after use in weed-infested areas, travel with care near wildlife, avoid areas with important wildlife habitat, and travel with care near cultural sites. Restrictions in riparian areas, areas with steep slopes, important wildlife habitat areas, etc. are addressed through the BLM and FS normal permitting and leasing process based on existing management plans and best management practices. The following outlines the varied needs for motorized wheeled cross-country travel.

Motorized wheeled cross-country travel would be allowed for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.

Motorized wheeled cross-country travel for the BLM and FS would be limited to official administrative business as outlined by internal memo (see Appendix D in the FEIS). Examples of administrative use would be prescribed fire, noxious weed control, revegetation, and surveying. Where possible, agency personnel performing administrative functions would locate a sign or notice in the area they are working to identify for the public the function they are authorized to perform.

Motorized wheeled cross-country travel for other government entities on official administrative business would require authorization from the local field manager or district ranger in their respective areas. This authorization would be through normal permitting processes and/or memoranda of understanding. Some examples of other agency administrative use would be noxious weed control, surveying, and animal damage control efforts. Where possible, the authorized party performing administrative functions would locate a sign or notice in the area they are working to identify for the public the function they are authorized to perform.

Motorized wheeled cross-country travel for lessees and permittees would be limited to the administration of a federal lease or permit. Persons or corporations having such a permit or lease could perform administrative functions on public lands within the scope of the permit or lease. However, this would not preclude modifying permits or leases to limit motorized wheeled cross-country travel during further site-specific analysis to meet resource management objectives or standards and guidelines.

Motorized wheeled cross-country travel for personal use permits, such as firewood and Christmas tree cutting, could be allowed at the local level (BLM field office or FS ranger district) in specific areas identified for such use. In all other areas, motorized wheeled cross-country travel associated with personal use permits would not be allowed.

Motorized wheeled cross-country travel for big game retrieval would not be allowed. The retrieval of a big game animal that is in possession (i.e. tagged), would be allowed on roads and trails unless currently restricted. Through subsequent site-specific planning, options for big game retrieval could be considered. For example, big game retrieval could be allowed from 10 a.m. to 2 p.m. daily on restricted roads or trails. This big game retrieval requirement would also apply to the BLM's Big Dry and Judith-Valley-Phillips Resource Management Plans where motorized wheeled cross-country travel is currently allowed for big game retrieval.

The following exception would apply unless currently restricted:

> Motorized wheeled cross-country travel to a campsite would be permissible within 300 feet of roads and trails. Site selection must be completed by nonmotorized means and accessed by the most direct route causing the least damage. This exception does not apply where existing seasonal restrictions prohibit traveling off designated routes to a campsite. Existing local rules take precedence over this exception. This distance could be modified through subsequent site-specific planning.

The following mitigation measures for the western prairie fringed orchid would apply:

1. Motorized wheeled cross-country travel for FS official administrative business would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.

2. Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.

Species Evaluations

Descriptions of threatened, endangered, and proposed plant, animal, and fish species, including habitat requirements, are summarized below. Additional information is included in Chapter 3 of the final environmental impact statement and proposed plan amendment (FEIS).

Effects on Fish

Introduction

The impacts of motorized wheeled cross-country travel on aquatic resources have been documented in the Aquatics, Affected Environment section of the FEIS and are considered part of the existing condition. With no action the intensity of motorized wheeled cross-country use on National Forest System (NFS) and BLM lands within the analysis area is expected to increase. This analysis evaluates the effects of prohibiting or otherwise limiting off road/ trail travel as described in the Preferred Alternative.

The Montana Department of Environmental Quality (1998) identified probable causes of pollution for each stream listed as threatened or impaired (303(d)). Common causes of pollution for streams on NFS or BLM lands are habitat alterations and siltation. While numerous sources often exist for such pollution, the degraded conditions attributed to OHV use in riparian areas and stream bottoms are also likely contributors of such pollution on listed streams. Because sediment and aquatic habitat alterations associated with OHV traffic would likely continue to increase, it is probable that water quality on some of the 303(d) streams would, in some cases, further deteriorate. These effects would likely be most pronounced east of the continental divide. It is conceivable that isolated populations of bull trout could become more vulnerable to angling and poaching as more people utilize motorized wheeled cross-country travel to access streams that were formerly accessible only by nonmotorized travel. It is also conceivable that as the number of trail-stream crossings increase, salmonid redds could be at greater risk from disturbance at stream fords. This scenario is more likely as OHV technology continues to improve, producing machines more capable of accessing difficult terrain. Salmonid habitat may be compromised in the future on the west side of the divide as technology improves.

The primary factors associated with the decline of sturgeon, which are the development of water resource projects within the Missouri River basin during the 1950's and 1960's, continued maintenance and operation of these projects, as well as the construction and operation of main stem and tributary dams and reservoirs, construction of river training structures and levees for navigation and flood control, respectively, and water diversion projects, have contributed to the past and present destruction and modification of habitat (USDI 1999b). The past and continuing destruction and alteration of the large river functions and habitat once provided by the Missouri and Mississippi Rivers is believed to be the primary cause of declines in reproduction, growth, and survival of large river fish such as the endangered pallid sturgeon. The decline of the Kootenai River white sturgeon is primarily a result of impoundments and exploitation (USDI 1999a).

Because of the great size of the rivers that these sturgeons inhabit, and the apparent minimal effects of motorized wheeled cross-country travel reported across the region, it is unlikely that motorized wheeled cross-country travel at current levels would further compromise the status of the white sturgeon or pallid sturgeon.

The Preferred Alternative restricts motorized wheeled cross-country travel but use could continue where OHV user-created roads and trails have been established in riparian areas, areas of unusual erosiveness, or areas of critical aquatic habitats. Should user-created routes be identified that are effecting riparian areas or stream conditions, the agencies can and will take action to immediately close any route where off-road vehicles are causing or will cause considerable adverse effects upon threatened or endangered species (43 CFR 8341.2 and 8364.1 and 36 CFR 295.2 and 295.5).

The amount of sediment routed to streams and rivers in the analysis area is highly variable and dependent upon numerous factors, such as the amount of OHV use, soil type, topography, vegetative conditions, etc., that cannot be easily quantified at this level.

White Sturgeon: This endangered species historically occurred on the Pacific coast from the Aleutian Islands to central California. It occurs in the Columbia River system and its major tributary, the Kootenai River. They are generally long-lived, with females living from 34 to 70 years. Females normally require a longer period to mature

than males, with females spawning between 15 to 25 years of age. White sturgeon are broadcast spawners in large rivers during peak flows from April through July. The Kootenai River population is one of 18 landlocked populations known to occur in western North America. White sturgeon is mainly a bottom feeder and feeds on mostly fishes and a wide variety of invertebrates (Scott and Crossman 1973). It has been documented that the decline of the Kootenai River white sturgeon is primarily a result of impoundments and exploitation (USDI 1999a).

Because of the apparent minimal effects to water quality of motorized wheeled cross-country travel reported across the region, it is not believed that such travel, at the current levels, would further compromise the status of the white sturgeon.

Pallid Sturgeon: This endangered species is well adapted for life at the bottom of swift, large, turbid and free flowing rivers. Pallid sturgeon evolved in the diverse environments of the Missouri and Mississippi Rivers. Flood plains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters formed the large river ecosystem that provided macro habitat requirements for pallid sturgeon and other native large river fish (Dryer and Sandoval 1993). These habitats within the analysis area have been drastically altered. "On the mainstream of the Missouri River, approximately 36% of riverine habitat within the pallid sturgeon's range was eliminated by construction of six massive earthen dams between 1926 and 1952 and another 40% has been channelized. The remaining 24% has been altered due to changes in water flows caused by dam operations" (Dryer and Sandoval 1993).

The range of water depths where pallid sturgeon were frequently found in South Dakota is 7 to 20 feet. In Montana, pallid sturgeon were captured from depths that ranged from 3.9 to 12.1 feet, but they were captured in deeper waters during the winter (Dryer and Sandoval 1993). During late summer in North Dakota, pallid sturgeon were captured at depth that ranged from 6.9 to 24.9 feet (Dryer and Sandoval 1993).

Because of the great size of the rivers that pallid sturgeons inhabit, the typical water depths in which they have been found, and the apparent minimal effects to water quality of motorized wheeled cross-country travel reported across the region, it is not believed that such travel, at current levels, would further compromise the status of the pallid sturgeon.

Bull Trout: This is a threatened species within the Columbia River basin. The following discussion of bull trout habitat requirements is taken from Montana Bull Trout Scientific Group (1998). The majority of migratory bull trout spawning in Montana occurs in a small percentage of the total stream habitat available. Spawning takes place between late August and early November, principally in third and fourth order streams. Spawning adults use low gradient areas (less than 2%) of gravel/cobble substrate with water depths between 0.1 and 0.6 m and velocities from 0.1 to 0.6 m/s. Proximity of cover for adult fish before and during spawning is an important habitat component. Spawning tends to be concentrated in reaches influenced by groundwater where temperature and flow conditions may be more stable. The relationship between groundwater exchange and migratory bull trout spawning requires more investigation. Spawning habitat requirements of resident bull trout are poorly documented.

Successful incubation of bull trout embryos requires water temperatures below 8 degrees C, less than 35 to 40% of sediments smaller than 6.35 mm in diameter, and high gravel permeability. Eggs are deposited as deep as 25.0 cm below the streambed surface and the incubation period varies depending on water temperature. Spawning adults alter streambed characteristics during redd construction to improve survival of embryos, but conditions in redds often degrade during the incubation period. Mortality of eggs or fry can be caused by scouring during high flows, freezing during low flows, superimposition of redds, or deposition of fine sediments or organic materials. A significant inverse relationship exists between the percentage of fine sediment in the incubation environment and bull trout survival to emergence. Entombment appeared to be the largest mortality factor in incubation studies in the Flathead drainage. Groundwater influence plays a large role in embryo development and survival by mitigating mortality factors.

Rearing habitat requirements for juvenile bull trout include cold summer water temperatures (15 degrees C) provided by sufficient surface and groundwater flows. Warmer temperatures are associated with lower bull trout densities and can increase the risk of invasion by other species that could displace, compete with, or prey on juvenile bull trout. Juvenile bull trout are generally benthic foragers, rarely stray from cover, and they prefer complex forms of cover. High sediment levels and embeddedness can result in decreased rearing densities. Unembedded cobble/rubble substrate is preferred for cover and feeding and also provides invertebrate production. Highly variable streamflow, reduction in large woody debris, bedload movement, and other forms of channel instability can limit the distribution and abundance of juvenile bull trout. Habitat characteristics that are important for juvenile bull trout of migratory populations are also important for stream resident subadults and adults. However, stream resident adults are more strongly associated with deep pool habitats than are migratory juveniles.

Both migratory and stream resident bull trout move in response to developmental and seasonal habitat requirements. Migratory individuals can move great distances (up to 250 km) among lakes, rivers, and tributary streams in response to spawning, rearing, and adult habitat needs. Stream resident bull trout migrate within tributary stream networks for spawning purposes, as well as in response to changes in seasonal habitat requirements and conditions. Open migratory corridors, both within and among tributary streams, larger rivers, and lake systems are critical for maintaining bull trout populations.

Effects of the Preferred Alternative

This Preferred Alternative would reduce stream bank erosion, compaction of riparian soils, and the loss of riparian vegetation. Habitat alterations and sediment generated by OHV use are not expected to spread to new areas since the Preferred Alternative restricts motorized wheeled cross-country travel in riparian areas and stream corridors. Should user-created routes be identified that are effecting riparian areas or stream conditions the agencies can and will take action to immediately close any route where off-road vehicles are causing or will cause considerable adverse effects upon threatened or endangered species (43 CFR 8341.2 and 8364.1 and 36 CFR 295.2 and 295.5).

Effects, as a result of the exceptions under the Preferred Alternative, are not likely to affect streams and riparian habitats, nor increase the vulnerability of isolated fish populations to further losses. Although unlikely, these effects can not be totally dismissed for the bull trout and, as a result, a **May Affect but Not Likely to Adversely Affect** determination is made for the bull trout. This is not the case for the two species of sturgeon and, due to the severely altered nature of the river systems on which these fish depend, as well as other environmental factors and exploitation issues, it is the FS and BLM's determination that the Preferred Alternative would have no direct, indirect, or cumulative effects. As a result the finding would be **No Effect** to the Pallid Sturgeon or White Sturgeon.

Effects on Animals

Introduction

As documented in the Montana Chapter of the Wildlife Society Report (Joslin et al.1999), vehicles do impact wildlife. The severity of the impact may be in direct relationship to the amount of vehicle travel occurring.

The current level of impact (as discussed in the Wildlife, Existing Impacts from Vehicles on Wildlife section of the FEIS) in the three-state area from motorized wheeled cross-country travel would be reduced with the Preferred Alternative. Many of the direct and indirect impacts discussed in that section that could affect the sensitive species listed in Appendix F of the FEIS, including direct crushing of individual animals, habitat modification through vegetation and soil disturbance, abandonment of disturbed areas in favor of undisturbed sites, behavioral alterations affecting mating, feeding and predator avoidance, and nest abandonment, would be reduced.

Impacts from vehicles can be direct as a result of collision or crushing of individual animals, however, with small mammals most impacts are related to the impacts on vegetation and barriers created by trails and roads. Habitat fragmentation reduces effective habitat for particular species. Generally, the more important the habitat type and the smaller the home range of the species, the greater the effect of fragmentation. Fragmentation of habitat from OHV use would occur as a result of long-term and repeated use resulting in the creation of a road or trail system in the particular habitat. This situation has been documented at a number of localities, often the result of hunters and the hunting season. Under the Preferred Alternative, fragmentation from motorized wheeled cross-country travel or from user-created roads and trails would be reduced.

Physiological effects on wildlife from human disturbances, including from vehicles, have been well documented. Most studies of these effects have been on ungulates such as deer and elk, prey species for T&E carnivores such as gray wolves. The casual observer who visits a big game winter range and watches the deer and elk may observe little disturbance exhibited by the animals. But that observer is unaware of the actual physiological stress the animal is experiencing and how that contributes to the animal's cost of living. Vehicular harassment on winter range, important summer range or other special habitat features can be governed by road placement. Animals can leave the area if the harassment is too severe or, possibly, adapt to it if the harassment has become frequent, both of which have negative consequences. However, motorized wheeled cross-country travel, which is less patterned and less expected, may be more relatively disruptive. Off-road areas now open to travel would be restricted by the Preferred Alternative and these impacts would be minimized.

One of the greatest indirect impacts from vehicles in Montana, both on and off roads, has been the spread of noxious weeds in wildlife habitats. Weed establishment has reduced the quality and quantity of wildlife forage over large areas. Weeds spread by OHV's are particularly hard to control as they are spread at random over large areas, and not just along a roadway. The Preferred Alternative would restrict motorized wheeled cross-country travel and would minimize the spread of weeds and loss of wildlife habitat.

Agencies currently have the authority to immediately close any area, road or trail where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegeta-

tion, wildlife, wildlife habitat, cultural resources, threatened or endangered species, or other resources (43 CFR 8341.2 and 8364.1 and 36 CFR 295.2 and 295.5). T&E habitats and riparian/wetland areas are priority areas for protection.

Insects

American Burying Beetle: This endangered species is very rare and listed only for the South Dakota portion of the project area. Within South Dakota it is only known to occur in Gregory and Tripp Counties of which BLM has 172 and 160 surface acres, respectively. There is no documented occurrence of the species on federal land in South Dakota and the likelihood that it would occur on federal land is low.

Suitable habitat for the beetle is any site with significant humus or topsoil for burying carrion (USFWS 1995). The Preferred Alternative would restrict or limit wheeled motorized travel to existing trails and roads, which would be lacking these habitat conditions. Therefore, the Preferred Alternative should eliminate any chance of effects to the species from motorized wheeled cross-country travel.

Effects of the Preferred Alternative

The Preferred Alternative would have **No Effect** to the American burying beetle.

Animals - Birds

Whooping Crane: This endangered species has not been documented on federal lands in Montana, North Dakota or South Dakota. Migrations pass over this area, but there have been no documented nesting, roosting, or foraging on BLM or NFS lands.

Bald Eagle: This threatened species is a migrant in North Dakota and South Dakota but occurs year-round in Montana and has made significant gains in breeding numbers. In 1978, only 12 breeding pairs were known in Montana (Servheen 1978). Spring counts in 1998 totaled 248 nests, which exceeds recovery goals (D. Flath, pers. comm. 1999). In July of 1999 the FWS issued proposed rule to delist the bald eagle.

In Montana, bald eagles use riparian and wetland habitats during breeding season and choose old, large diameter trees for nesting (Montana Bald Eagle Working Group 1994). On the west side of the continental divide, where most of the nests are located, no evidence has surfaced that indicates disturbance from OHV travel is having a significant effect on eagles (M. Hillis, pers. comm. 1999).

The current condition is apparently providing suitable conditions for the recovery of the species, as evidenced by the proposed rule to delist the species. Specific bald eagle management direction to promote recovery is provided in the July 1994 Montana Bald Eagle Management Plan. Specific direction is provided to eliminate potential threat to nesting bald eagles through the use of nest site management zones. These zones have various levels of restricted use. Agencies are required to follow T&E species Recovery Plans and Conservation Strategies.

The Preferred Alternative, which restricts or limits motorized wheeled cross-country travel, would reduce potential direct, indirect, or cumulative effects to the species by eliminating use in the nest site management zones. If user-created routes in these zones exist or are discovered, the FS and BLM would take actions to comply with the Bald Eagle Management Plan. Although the direct and indirect effects from motorized wheeled cross-country travel would be minimized by the Preferred Alternative, there may be some insignificant or discountable effects associated with continued motorized wheeled cross-country travel as allowed under the exceptions. In addition, there could be some positive effects by reducing potential disturbance and/or displacement of nesting or roosting eagles.

Piping Plover: This threatened species breeds along the Atlantic coast from southern Canada to North Carolina; along major rivers and wetlands in the northern Great Plains from Saskatchewan and Manitoba through Nebraska; and along portions of the western Great Lakes. On rivers, plovers primarily nest on sand beaches, flats, pebble beaches, and drained floodplains. In Montana, nesting habitat is primarily unvegetated sand-pebble beaches or islands. In North Dakota, they have also been documented on saline wetlands. Both habitats occur on BLM lands.

One piping plover nest has been documented in Montana on a 16-acre parcel of BLM land in the Miles City Field Office area, which has been designated an Area of Critical Environmental Concern for the piping plover. There are no known occurrences on NFS or BLM lands in North Dakota and South Dakota, and the amount of habitat on NFS and BLM land is limited.

Habitat loss and degradation due to coastal development, recreation, navigation, dredging, and shoreline stabilization and replenishment projects have been major contributors to this species' decline. On rivers, widespread impoundment throughout the Great Plains has had negative effects from the curtailment of scouring of sandbars and limiting formation of new sandbars.

Existing threats associated with motorized wheeled cross-country travel have not been documented in the analysis area.

Mountain Plover: This species is proposed to be listed as threatened. Mountain plovers would most likely occur on the shortgrass prairie of eastern Montana. Knowles and Knowles (2000) summarized their survey of mountain plovers from 1991-1999 for Montana east of the continental divide. Mountain plovers were found at nine distinct areas. They were closely associated with sites characterized by slopes under 5%, vegetative height under 6 cm, and greater than half the soil surface being bare ground, lichen and/or club moss. Often they are associated with prairie dog colonies.

Least Tern: Favorite nesting sites for this endangered species include bare ground (recent alluvium) on islands. One island in the Yellowstone River, adjacent to public land, contains a colony of nesting least terns. None are known to occur on BLM or NFS lands in the analysis area. During spring and fall migrations least terns may use stock water reservoirs.

Effects of the Preferred Alternative

The direct, indirect, and cumulative effects associated with motorized wheeled cross-country travel would vary by species. Motorized wheeled cross-country travel would be restricted or eliminated with the possible exception of administrative and permitted uses that may continue. These uses would be administered to avoid T&E habitat but could still result in insignificant or discountable effects to the bald eagle, piping plover and mountain plover. Any routes found or created would be managed in accordance with the Bald Eagle Management Plan. Therefore, the preferred alternative **May Affect but Is Not Likely to Adversely Affect** the bald eagle, piping plover and mountain plover. Under the current status of Proposed Threatened, the FS and BLM find that the Preferred Alternative **Is Not Likely to Jeopardize the Continued Existence of the** mountain plover. If listed, the Preferred Alternative **May Affect but Is Not Likely to Adversely Affect** the mountain plover.

Due to the lack of presence in areas of OHV use, there would be **No Effect** to the least tern or whooping crane.

Animals - Mammals

Black-Footed Ferrets: The black-footed ferret is one of the most imperiled mammals in the world and certainly the most endangered mammal in North America. The last known wild population of black-footed ferrets was discovered near Meeteetse, Wyoming in 1981. By 1987 the last known black-footed ferrets were removed from the wild and placed in a captive breeding program. In 1994, ferrets were reintroduced onto the UL Bend/C.M. Russell National Wildlife Refuge in Montana under a nonessential experimental population designation. Releases have occurred annually on the C.M. Russell National Wildlife Refuge. According to the FWS, 41 ferrets were counted on the C.M.R. during the fall of 1998 (R. Matchette, pers. comm. 1999). In 1997, ferrets were first released on the Fort Belknap Indian Reservation in Montana and in 2000, black-footed ferrets were first released on the Cheyenne River Sioux Reservation in South Dakota.

Prairie dog colonies are considered key to the survival and recovery of the endangered black-footed ferret. Burrows provide shelter and the prairie dog itself is food for the ferret. Large prairie dog colonies or complexes are needed for ferret survival, and this is the reason Phillips County was chosen as Montana's reintroduction area. In 1992, a disease, believed to be sylvatic plague, erupted in the Phillips County area and by 1996, as much as 80 percent of the prairie dog population had been lost. In the past, these prairie dog towns in Phillips County have been an important area to sport shooters. In 1999, because of declines in prairie dogs numbers as a result of disease, BLM issued a shooting closure on prairie dog towns in portions of southern Phillips County.

Although no black-footed ferrets have been released or are known to occur on BLM or NFS lands in the analysis area, BLM lands are in close proximity to occupied habitat on the Fort Belknap Reservation and the UL Bend area of the C.M. Russell National Wildlife Refuge. In addition, BLM lands in Phillips County are still very high priority for reintroduction to aid in the recovery of this species.

Gray Wolf: The recovery plan for this endangered species discussed three areas for wolf recovery, including the Central Idaho Recovery Area, the Northwest Montana Recovery Area, and the Yellowstone Recovery Area (USDI 1987). The goal for delisting was to establish 10 or more packs in each of these three areas. Increases in gray wolf numbers, expansion of the species' occupied range, and progress toward achieving the reclassification and delisting criteria of several approved gray wolf recovery plans have led to a proposed downlisting of this species throughout most of its range, including Montana, North Dakota and South Dakota.

Wolves first expanded down from Canada in northwest Montana and have continued expansion ever since. Recently, successful releases in Yellowstone Park and Central Idaho advanced the process. Key components of wolf habitat include sufficient year-round big game prey base and secluded denning and rendezvous sites with minimal exposure to humans. Riparian and wetland sites are especially important for rendezvous sites, which are specific resting and gathering areas for the packs after the whelping den has been abandoned. Beaver provide an important alternate prey in these areas during ice-free times (USDI 1987).

The Preferred Alternative would lessen the direct and indirect effects associated with motorized wheeled cross-country travel; however, Motorized wheeled cross-country travel could still be allowed under special exceptions. These exceptions include motorized wheeled cross-country travel for: any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes; disabled access per the Rehabilitation Act of 1973; BLM and FS administrative purposes; travel for lessees and permittees limited to the administration of a federal lease or permit; and personal use permits, such as firewood and Christmas tree cutting, which could be allowed at the local level (BLM field office or FS ranger district) in specific areas identified for such use.

Grizzly Bear: The greatest numbers of grizzly bears currently occur in Alaska and Canadian provinces. In the lower 48 states this threatened species occurs in smaller, fragmented populations and the FWS recognizes five recovery areas. The Northern Continental Divide Ecosystem of western Montana, the Yellowstone Ecosystem including southwestern Montana, portions of Wyoming, and Idaho (essentially centered in Yellowstone National Park), the Selkirk-Cabinet-Yaak ecosystem, the North Cascades of Washington, and the Selway-Bitterroot ecosystem of Montana and Idaho. A recent proposal has been made to reintroduce grizzly bears in the Selway-Bitterroot.

Although habitat use and food habits differ among the four currently occupied recovery areas (Joslin and Youmans 1999) grizzlies are opportunistic and omnivorous and will feed on animal or vegetable matter. Herbaceous plants are utilized, as are ground squirrels, carrion, garbage, ungulates, roots, fruits, berries, tubers, fungi, pine nuts, and even tree cambium. Bears occasionally prey on livestock and also are attracted to bone yards and dead livestock. Many bear foods, both animal and vegetable, occur in riparian and wetland areas, with some of the berry-producing shrubs occurring in the uplands.

Den sites are generally at high elevation, on northerly aspects, and most often within subalpine forest and non-forest areas (Joslin and Youmans 1999). Den site selection in the northern Swan Mountains of Montana was found to be similar for all age and sex classes (Mace and Waller 1997). Females were found, on average, to enter dens earlier and leave later.

Breeding season for grizzly bears in the lower 48 states is from late May through mid-July (FWS 1993). Females vary in age from 4.5 to 9.5 years for their first litter and generally have 2 cubs with a breeding interval of 3 years (IGBC 1987). The FWS (1993) reported grizzly bears to have one of the lowest reproductive rates among terrestrial mammals.

Large areas of relatively undisturbed land with food, cover, denning habitat, solitude, and space are important for effective grizzly bear habitat (Interagency Grizzly Bear Committee 1987, Craighead et al. 1982). Recreational activity may diminish the value of habitat for grizzly bears through modification or displacement (Joslin and Youmans 1999). The Grizzly Bear Recovery Plan (USDI 1993) identifies human depredation, competitive use of habitat, and livestock grazing as sources of conflict.

As human populations have grown within and adjacent to grizzly bear areas during the past 20 years, recreational use of public land in grizzly bear habitat has also increased. Substantial improvements to OHV's, including ease of use, reliability, and affordability to a larger segment of the population, have all contributed to the increased use.

Numerous studies have shown that grizzly bears are negatively affected by increased road density or increased use of roads within a bear's home range. Manley and Mace (1992) reported that bear use was significantly less than expected where open road density was >1 mi./mile squared or where total road density was >2mi./mile squared. Further analysis by Mace et al. (1996) showed that changes in habitat use due to roads differed by season and among individual bears. Certain individuals had a higher tolerance for road densities but the probability of occurrence generally decreased as road density increased. Within a 0.5 km buffer around roads, most bears avoided roads with use exceeding 10 vehicles per day.

Although no evidence is available to document the effects from off-road/trail vehicle travel, it is logical to assume that vehicle activity, whether on or off-road, would negatively affect grizzly bears. There should be no negative impacts from the Preferred Alternative, since it is to limit or restrict Motorized wheeled cross-country travel with the possible exception of administrative and permitted uses.

The analysis of effects to grizzly bear habitat includes an assessment of impacts to core (secure) areas. Core areas are partially defined by the lack of open roads. Roads may be present in the core area but they are closed to vehicle traffic. With the addition of this proposed action (Preferred Alternative), motorized vehicle travel would not be permitted in the core areas with the possible exception of very limited administrative use.

Further, road and trail access is managed to conserve grizzly bear habitat outside the core areas. Open and total route densities are limited in these areas to protect grizzly bears. The preferred alternative would restrict all cross-country motorized use to existing roads and trails which will reduce off-road/trail disturbance to grizzly bears. According to IGBC guidance (IGBC 1994, 1998) all roads or

trails receiving motorized use should be counted in open motorized route densities. Therefore, if user-created routes outside core areas exist or are discovered, the FS and BLM would take actions to make such routes inaccessible to motorized use or the routes would be included in access density calculations and thereby subject to appropriate access limitations.

Effects from the Preferred Alternative are not likely to adversely affect the grizzly bear and, in fact, would likely be positive/beneficial as Motorized wheeled cross-country travel would be prohibited or restricted, further protecting grizzly bear habitat from human disturbance.

Canada Lynx: The Canada lynx was recently (July 24, 2000 final rule) listed as threatened. Lynx occur primarily in the boreal, sub-boreal, and western montane forests of North America. In Montana, the western montane forests include spruce/fir, Douglas-fir, and fir-hemlock vegetation types dominated by lodgepole pine, Engelmann spruce, subalpine fir, aspen, and whitebark pine at 1,400-2,700 meters. Snowshoe hares are the primary prey of lynx, although diet can be more varied in the summer than the winter. Fire mosaics contribute to snowshoe hare abundance. Recent studies indicate that lynx show no preference or avoidance of unpaved forest roads, and that road density does not appear to affect lynx habitat selection (McKelvey et al. 2000). Effects from use by OHV's during the non-winter period when snow is not present are insignificant or discountable and probably have very little, if any, effect on lynx.

Effects of the Preferred Alternative

Under the Preferred Alternative, motorized wheeled cross-country travel would be restricted or eliminated with the possible exception of administrative and permitted uses that may continue. These uses would be administered to avoid T&E species and their habitat and **May Affect but Are Not Likely to Adversely Affect** the black-footed ferret, gray wolf, grizzly bear, or Canada lynx within the analysis area.

These threatened and endangered mammals within the analysis area may continue to be impacted by the limited cross-country OHV use, although the likelihood for direct or indirect effects to occur is so unlikely as to be insignificant or discountable. Cumulative effects from this Preferred Alternative, when considered with other known or foreseeable future projects likely to be implemented by private, local, state, or tribal administration, would also be insignificant or discountable and not likely to adversely affect these species.

Effects on Plants

Introduction

Introduction and establishment of weeds can displace native species and plant communities, which results in loss of species diversity and a change in the structure of the plant community (Tyser and Key 1988, Tyser 1992, Rice et. al. 1997). Motorized wheeled cross-country travel is one cause of noxious weed spread. A direct effect to plants is the crushing of individuals or disturbance of populations; however, the amount of area of native plant community directly affected by motorized wheeled cross-country travel is quite small considering the whole analysis area and cannot be measured at the scale of this analysis.

This proposal is programmatic in nature; therefore, the discussion of effects will be general and qualitative rather than quantitative.

Water Howellia: This threatened plant species occurs as a submerged or floating annual associated with lakes and ponds. The surrounding upland vegetation is typically a dense conifer forest. Most of the 106 occurrences on record in Montana are on the Flathead National Forest, all in the Swan Valley (Lake and Missoula Counties). Some of these sites occur in limited access grizzly corridor zones behind locked gates where use is restricted by number of visits per week. The habitat of this plant is not conducive to OHV traffic, and no impacts from motorized wheeled cross-country travel are known or anticipated to occur.

Ute Ladies' Tresses: None of the 11 occurrences in Montana of this threatened plant species are on BLM or NFS lands, although the Butte Field Office was involved in an interagency wetland project at one site that has been opened to hunting and other nonmotorized public use and was identified at one time as a possible land exchange. The habitat for this species includes meandered wetlands and swales in broad, open valleys at margins with calcareous carbonate accumulation. The occurrences are in a four-county area of the Jefferson River and confluent lower reaches of the Beaverhead, Gallatin, Madison and Ruby Rivers. Most Montana occurrences are on private land; a few are on State lands. Surveys for this species were conducted to delimit the range of distribution in Montana, including the most likely BLM and NFS lands. This species was not found on NFS or BLM lands (B. Heidel, pers. comm. 2000); therefore, the likelihood that this species occurs on BLM or NFS lands is low and no impacts from motorized wheeled cross-country travel are known or anticipated to occur.

Western Prairie Fringed Orchid: There are three remaining large populations of this threatened species. One occurs within the analysis area on the Sheyenne National Grass-

land. This species is associated with sedge meadows, primarily within the tallgrass prairie. It occurs in the sandhills habitat association on the Sheyenne National Grassland. Across its range, the species is generally found in fire and grazing adapted grassland communities, most often on unplowed calcareous prairies and sedge meadows. It has also been documented in successional plant communities on disturbed sites. (USDA 1999).

Maintenance of functional, dynamic tallgrass prairie is key to survival of the species. Disturbances such as fire, flooding, and grazing occurred historically and may be important for orchid regeneration. Precipitation and flooding events on the Sheyenne National Grassland influence extinctions and recovery of local orchid populations. (USDA 1999).

The following mitigation measures for the western prairie fringed orchid would apply:

1. Motorized wheeled cross-country travel for FS official administrative business would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.

2. Motorized wheeled cross-country travel for lessees and permittees to administer federal leases or permits would not be allowed in known western prairie fringed orchid habitat on the Sheyenne National Grassland in eastern North Dakota without prior approval so as to eliminate impacts to occupied habitat.

Spalding's Catchfly: Currently proposed as threatened, this species is known from a total of 52 populations distributed across Washington, Oregon, Idaho, Montana, and British Columbia. The habitat is primarily restricted to moist grasslands that make up the Palouse region in southeastern Washington, northwestern Montana and adjacent portions of British Columbia, Idaho and Oregon. Large-scale ecological changes in the Palouse region over the past several decades, including agricultural conversion, changes in fire frequency, and alterations of hydrology have resulted in the decline of Spalding's Catchfly. More than 98 percent of the original Palouse prairie habitat has been lost or modified by agricultural conversion, grazing, invasion of nonnative species, altered fire regimes, and urbanization. In northwest Montana, this open grassland habitat is one of the few habitats conducive to motorized wheeled cross-country travel.

Within the analysis area, none of the known populations of Spalding's catchfly occur on NFS or BLM lands. However, potential habitat exists on the Kootenai, Flathead, and Lolo National Forests. One of the largest populations occurs in Eureka, Montana in close proximity to NFS lands. Other populations in Montana also occur near federal lands; therefore, the probability that this species occurs on federal lands is moderate. Future surveys of potential habitat on NFS and BLM lands will be needed to determine the extent of this species.

Some past surveys for this species have been conducted on the Kootenai and Flathead National Forests without detecting the species. On the Flathead National Forest, small isolated suitable habitats exist along the North Fork of the Flathead River flood plain from the Canadian border to Polebridge; in very small, isolated grasslands in the Swan Valley; and in larger open fescue bunch grass prairies in the South Fork Flathead and Danaher Creek drainages within the Bob Marshall Wilderness. These habitats do not comprise more than 1% of the land base of the Flathead National Forest and most have been surveyed for this species (M. Mantas, per. comm. 2000). On the Kootenai National Forest, potential habitat exists in the Tobacco Valley area around Eureka, Montana where one of the largest known populations occurs. Some of the grazing allotments with suitable habitat have been surveyed for this species, without detecting any populations.

Effects of the Preferred Alternative

Potential habitat for the Spalding's catchfly exists and may continue to be impacted by OHV use. Under the current status as Proposed Threatened we find that the Preferred Alternative **Is Not Likely to Jeopardize the Continued Existence of the Species.** With motorized wheeled cross-country travel restricted under the Preferred Alternative, the likelihood for direct or indirect effects to occur is so low, as to be insignificant or discountable and therefore, if the Spalding's catchfly is federally listed, the Preferred Alternative **May Affect but Is Not Likely to Adversely Affect** the species.

There would be **No Effect** to water howellia due to the habitat of this plant not being conducive to OHV traffic, and that no impacts from motorized wheeled cross-country travel are known or anticipated to occur. There would be **No Effect** to Ute ladies' tresses, as this species is not known to occur on NFS or BLM lands within Montana, although surveys of the most likely federal lands were conducted for this species to delimit its range of distribution (B. Hiedel, pers. comm. 2000).

The direct and indirect effects associated with motorized wheeled cross-country travel would be substantially reduced by implementation of the Preferred Alternative. Motorized wheeled cross-country travel would not be allowed in known western prairie fringed orchid habitat on

the Sheyenne National Grassland in eastern North Dakota without prior approval. This mitigation measure would apply to FS official administrative business, administration of federal leases or permits by lessees and permittees and is written into the Preferred Alternative to be incorporated into the decision. With this mitigation there would be **No Effect** to western prairie fringed orchid.

Summary of Effects to Species

NO EFFECT

Least tern (*Sterna antillarum*), endangered
Whooping crane *(Grus americana*), endangered
Pallid sturgeon (*Scaphirhvnchus albus*), endangered
White sturgeon (*Acipenser transmontanus*), endangered
American burying beetle (*Nicrophorus americanus*), endangered
Water howellia (*Howellia aquatilis*), threatened
Ute ladies' tresses (*Spiranthes diluvialis*), threatened
Western prairie fringed orchid (*Platanthera praeclara*), threatened

MAY AFFECT - NOT LIKELY TO ADVERSELY AFFECT

Black-footed ferret (*Mustela nigripes*), endangered
Gray wolf (*Canis lupus*), endangered
Bald eagle (*Haliaeetus leucocephalus*), threatened
Piping plover (*Charadrius melodus*), threatened
Canada lynx (*Lynx canadensis*), threatened
Grizzly bear (*Ursus arctos horribilis*), threatened
Bull trout (*Salvelinus confluentus*), threatened
Mountain plover (*Charadrius montanus*), proposed as threatened (this determination would be made if the final rule is to list the Mountain plover as threatened)
Spalding's catchfly (*Silene spaldingii*), proposed as threatened (this determination would be made if the final rule is to list Spalding's catchfly as threatened)

NOT LIKELY TO JEOPARDIZE THE CONTINUED EXISTENCE

Mountain plover (*Charadrius montanus*), proposed as threatened
Spalding's catchfly (*Silene spaldingii*), proposed as threatened

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GLOSSARY OF TERMS

Biological Assessment - Information prepared by the action agency to determine whether a proposed action is likely to adversely affect listed species or designated critical habitat.

Consult - As required under Section 7(a)(2) of the Endangered Species Act of 1973, as amended.

Cumulative Effects (ESA) - Those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02). This definition applies only to section 7 analyses and should not be confused with the broader use of this term in the National Environmental Policy Act or other environmental laws.

Cumulative Effects (NEPA) - The effects that "result from spatial (geographic) and temporal (time) crowding of environmental perturbations" (Council of Environmental Quality, 1997). It is recognized that effects of human activities will accumulate when a second perturbation occurs at a site before the ecosystem can fully rebound from the effect of the first perturbation. Cumulative effects can be either positive or negative. Cumulative effects are analyzed, therefore, by studying the incremental impact of an action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taken place over a period of time (40 CFR 1508.7).

Effects - Environmental consequences as a result of the implementation of an action. Effects may be: direct, which are caused by the action and occur at the same time and place; indirect, which are caused by the action and are later in time or farther removed in distance; or cumulative, which results from the incremental impact of the action when added to other actions (see cumulative effects).

Endangered Species - Any species which is in danger of extinction throughout all or a significant portion of its range. [ESA Section 3(6)]

ESA - The Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq*.

May affect - The conclusion when a proposed action may pose **any** effects on listed species or designated critical habitat.

Mitigation - Actions to avoid, minimize, reduce, eliminate, replace, or rectify the impact of a management practice.

No effect - The appropriate conclusion when a proposed action will not affect a listed species or designated critical habitat.

Noxious weeds - A plant species designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new or not common to the United States.

Off-Highway Vehicles - Any motorized wheeled vehicle designed for cross-country travel over any type of terrain.

Preferred Alternative - The agency's preferred alternative, one or more, that is identified in the impact statement (40 CFR 1502.14).

Proposed species - Any species of fish, wildlife, or plant that is proposed in the Federal Register to be listed under Section 4 of the ESA.

Threatened species - Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Viable population - A fish, wildlife or plant population of sufficient size to maintain its existence over time in spite of normal fluctuations in population levels.

APPENDIX D

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive, P.O. Box 36800
Billings, Montana 59107-6800
http://www.mt.blm.gov/

IN REPLY TO:

8340 (912) **P**

November 1, 2000

Email Transmission
Instruction Memorandum No. MT-2001-004
Expires: 9/30/2002

To: MT/DKs Employees

From: State Director

Subject: Cross Country Travel for Administrative Purposes

As BLM employees we are entrusted with an important conservation mission. Because of this mission, we decided to prepare an environmental impact statement (EIS)/plan amendment with the Forest Service analyzing the resource issues related to management of motorized off-highway vehicle (OHV) travel. During the OHV public involvement process, the public restated that protection of our resources depends not only on cooperation from our visitors and customers, but from our employees as well.

In the preferred alternative in the draft EIS, we are proposing to limit motorized, wheeled cross-country travel on approximately 15.9 million acres that are currently available to motorized, wheeled cross-country travel, either seasonally or year round. Basically we are recommending that public cross-country travel is no longer acceptable on BLM and National Forest lands with a few exceptions. Based on our commitment to the conservation of the resource, we as agency employees need to set the example and follow our own recommendation as we manage these resources.

Effective immediately, motorized, wheeled cross-country travel for BLM and FS employees is limited to necessary administrative and emergency business. Some examples of necessary administrative use are prescribed fire, noxious weed control, revegetation, surveying, and law enforcement. Where possible, agency personnel performing administrative functions that necessitates cross-country travel should place a sign or notice in the area where they are working to identify for the public the authorized administrative function.

If it is necessary to drive cross-country for official administrative business, let's remember to do the following: avoid riparian areas, steep slopes and areas with important wildlife habitat; wash vehicles after use in weed infested areas; and travel with care near wildlife and cultural sites.

As we move into finalizing the EIS and implementing a decision, we need to be role models for appropriate OHV travel. I expect all supervisors to discuss and implement this direction with their employees.

Signed by: Mat Millenbach, State Director

Authenticated by: Ann Boucher, Editorial Assistant

File Code: 1920/2330 **Date:** November 1, 2000
Route To:

Subject: Motorized Cross-Country Travel for Administrative Purposes

To: Region 1 Employees

As FS employees we are entrusted with an important conservation mission. As part of this mission, we have decided to prepare an EIS/plan amendment with the Bureau of Land Management (BLM), in Montana and the Dakotas analyzing the resource issues related to management of wheeled motorized off-highway vehicle (OHV) travel. During the OHV public involvement process, the public stated that protection of our resources depends not only on cooperation from our visitors and customers, but from our employees as well.

In the preferred alternative of the draft EIS we limited motorized, wheeled cross-country travel on approximately 15.9 million acres. We are saying that motorized cross-country travel is no longer acceptable on BLM and National Forest lands with a few exceptions. Based on our commitment to conservation, we need to set the example and follow our own recommendations as we manage the public's resources.

To demonstrate the appropriate use of OHVs to the public, permittees, and ourselves the following policy is effective immediately. Motorized, wheeled cross-country travel for all Northern Region employees is limited to necessary administrative and emergency business.

It's time to change how we accomplish our daily tasks in the field. Some examples of necessary administrative use are prescribed fire, noxious weed control, revegetation, surveying, and law enforcement. While doing these activities it is inappropriate, for example, to drive cross-country to eat lunch under the shade of a tree, sightseeing, etc. Where possible, agency personnel performing an administrative function that necessitates cross-country travel should place a sign or notice in the area where they are working to identify for the public the authorized administrative function.

When it is necessary to drive cross-country for official administrative business, remember to: avoid riparian areas, steep slopes, and areas with important wildlife habitat; wash vehicles after use in weed infested areas; and travel with care near wildlife and cultural sites.

Whether you work on a Forest affected by the current OHV EIS or not, we need to be role models for appropriate OHV travel. I expect all supervisors to discuss and implement this direction with their employees.

/s/ Dale N. Bosworth

DALE N. BOSWORTH
Regional Forester

APPENDIX E
TREAD LIGHTLY!

The Forest Service (FS) and Bureau of Land Management (BLM) are involved with many education programs. **Tread Lightly!** is one of these. Based on the same premise as the Smokey Bear and Woodsy Owl education programs that focus on reducing the impacts of fire and litter, **Tread Lightly!** is dedicated to protecting public and private lands through education. Emphasis is placed on responsible use of off-highway vehicles, other forms of backcountry travel, and on low impact principles applicable to all recreation activities.

Initially begun by the FS in 1985 and adopted by the BLM, today **Tread Lightly!** is a non-profit organization uniting a broad spectrum of federal and state government agencies, manufacturers of recreational products, media, enthusiast groups and concerned individuals who share a common goal for natural resources.

Some of the education principles of **Tread Lightly!** are:

- Stay on designated roads and trails so new scars are not established. Avoid sensitive areas at all times, especially sensitive areas susceptible to scarring, such as streambanks, lakeshores and meadows.
- Cross streams only at fords where the road or trail intersects the stream.
- Hill climb only in designated areas.
- Be sensitive to the life-sustaining needs of wildlife and livestock.
- In deep snow, stay clear of game so vehicle noise and close proximity do not add stress to animals struggling to survive.

The **Tread Lightly!** Pledge is:

- Travel and recreate with minimum impact.
- Respect the environment and the rights of others.
- Educate yourself, plan and prepare before you go.
- Allow for future use of the outdoors. Leave it better than you found it.
- Discover the rewards of responsible recreation.

There are other education programs designed for motorized recreationists, such as **Right Rider** and **Stay on the Right Trail** with similar principles: share the trail, be courteous to others, keep noise down, pack out your trash, respect wildlife, don't spread weeds, avoid wetlands, stay on the trail, and respect private lands.

APPENDIX F
THREATENED, ENDANGERED, AND SENSITIVE SPECIES

THREATENED AND ENDANGERED SPECIES THAT MAY OCCUR IN THE ANALYSIS AREA

Listed Species

Montana
Bald eagle (*Haliaeetus leucocephalus*)
Black-footed ferret (*Mustela nigripes*)
Whooping crane (*Grus americana*)
Piping plover (*Charadrius melodus*)
Least tern (*Sterna antillarum*)
Pallid sturgeon (*Scaphirhvnchus albus*)
Gray wolf (*Canis lupus*)
Canada Lynx (*Lynx canadensis*)
White sturgeon (*Acipenser transmontanus*)
Grizzly bear (*Ursus arctos horribilis*)
Bull trout (*Salvelinus confluentus*)
Water howellia (*Howellia aquatilis*)
Ute ladies' tresses (*Spiranthes diluvialis*)

North Dakota
Bald eagle (*Haliaeetus leucocephalus*)
Black-footed ferret (*Mustela nigripes*)
Whooping crane (*Grus americana*)
Piping plover (*Charadrius melodus*)
Least tern (*Sterna antillarum*)
Pallid sturgeon (*Scaphirhvnchus albus*)
Gray wolf (*Canis lupus*)
Western prairie fringed orchid (*Platanthera praeclara*)

South Dakota
Bald eagle (*Haliaeetus leucocephalus*)
Black-footed ferret (*Mustela nigripes*)
Whooping crane (*Grus americana*)
Piping plover (*Charadrius melodus*)
Least tern (*Sterna antillarum*)
American burying beetle (*Nicrophorus americanus*)
Pallid sturgeon (*Scaphirhvnchus albus*)
Gray wolf (*Canis lupus*)

Proposed Species

Mountain plover (*Charadrius montanus*)
Spalding's Catchfly (*Silene spaldingii*)

Source: USFWS; Montana Ecological Services, North Dakota Ecological Services, and South Dakota Ecological Services

BUREAU OF LAND MANAGEMENT - SPECIES OF SPECIAL CONCERN - ANIMALS

Mammals

Black-tailed prairie dog (*Cynomys ludovicianus*)
Fisher (*Martes pennati*)
Meadow jumping mouse (*Zapus hudsonius*)
Merriam's shrew (*Sorex merriami*)
North American lynx (*Felis lynx*)
North American Wolverine (*Gulo gulo luscus*)
Northern bog lemming (*Synaptomys borealis*)
Preble's shrew (*Sorex preblei*)
Pygmy rabbit (*Brachylagus idahoensis*)
Spotted bat (*Euderma maculatum*)
Spotted skunk (*Spilogale putorius*)
Swift fox (*Vulpes velox*)
Townsend's big-eared bat (*Plecotus townsendii*)
White-tailed prairie dog (*Cynomys leucurus*)
Woodland caribou (*Rangifer tarandus caribou*)

Birds

Baird's sparrow (*Ammodramus bairdii*)
Black backed woodpecker (*Picoides arcticus*)
Black tern (*Chlidonias niger*)
Boreal owl (*Aegolius funereus*)
Burrowing owl (*Athene cunicularia*)
Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*)
Common loon (*Gavia immer*)
Canvasback duck (*Aythya valisineria*)
Dickcissel (*Spiza americana*)
Ferruginous hawk (*Buteo regalis*)
Great gray owl (*Strix nebulosa*)
Hairy woodpecker (*Picoides villosus*)
Harlequin duck (*Histrionicus histrionicus*)
LeConte's sparrow (*Ammodramus leconteii*)
Loggerhead shrike (*Lanius ludovicianus*)
Long billed curlew (*Numenius americanus*)
Mountain plover (*Charadrius montanus*)
Northern goshawk (*Accipiter gentilis*)
Pileated woodpecker (*Dryocopus pileatus*)
Sage sparrow (*Amphispiza belli*)
Swainson's hawk (*Buteo swainsoni*)
Three-toed woodpecker (*Picoides tridactylus*)
Trumpeter swan (*Cygnus buccinator*)
White-faced ibis (*Plegadis chihi*)

Reptiles

Snapping turtle (*Chelydra serpentina*)
Spiny softshell turtle (*Trionyx spiniferus*)

Amphibians

Canadian toad (*Bufo hemiophrys*)
Coeur d'Alene salamander (*Plethodon idahoensis*)
Spotted frog (*Rana pretiosa*)
Tailed frog (*Ascaphus truei*)
Wood frog (*Rana sylvatica*)

Fish

Arctic grayling (fluvial pop.)(*Thymallus arcticus*)
Blue sucker (*Cycleptus elongatus*)
Northern redbelly X Finescale dace (*Phoxinus eos*) X (*Phoxinus neogaeus*)
Paddlefish (*Polyodon spathula*)
Pearl dace *(Margariscus margarita nachtriebi*)
Shortnose gar (*Lepisosteus platostomus*)
Sicklefin chub (*Macrhybopsis(Hybopsis) meeki*)
Sturgeon chub (*Machybobpis (Hybopsis) gelida*)
Westslope cutthroat trout (*Oncorhychus clarki lewisi*)
Yellowstone cutthroat trout (*Oncorhychus clarki bouvieri*)

FOREST SERVICE, NORTHERN REGION - SENSITIVE SPECIES

Montana, North Dakota and South Dakota

Montana, North Dakota and South Dakota
Arogos skipper (*Atrytona argos*)
Baird's sparrow (*Ammodramus bairdii*)
Belfragi's bug (*Chlorochroa belfragi*)
Black backed woodpecker (*Picoides arcticus*)
Black-tailed prairie dog (*Cynomys ludovicianus*)
Bighorn sheep (*Ovis canadensis californiana*)
Boreal toad (*Bufo boreas boreas*)
Burrowing owl (*Athene cunicularia*)
Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*)
Common loon (*Gavia immer*)
Coeur d'Alene salamander (*Plethodon idahoensis*)
Dakota skipper (*Hesperia dacotae*)
Fisher (*Martes pennati*)
Flammulated owl (*Otus flammeolus*)
Greater prairie chicken (*Tympanuchus cupido*)
Harlequin duck (*Histrionicus histrionicus*)
Interior redband trout (*Oncorhynchus mykiss gairdneri*)
Ling (*Lota lota*)
Loggerhead shrike (*Lanius ludovicianus*)
Montana arctic grayling (*Thymallus arcticus montanus* (Fluvial))
Northern bog lemming (*Synaptomys borealis*)
Northern goshawk (*Accipiter gentilis*)
Northern leopard frog (*Rana pipiens*)
Ottoe skipper (*Hesperia ottoe*)
Pallid bat (*Antrozous pallidus*)
Powesheik skipperling (*Oarisma powesheik*)
Pygmy rabbit (*Brachylagus idahoensis*)
Regal fritillary (*Speyeria idalia*)
Sage grouse (*Centrocercus urophasianus*)
Sicklefin chub (*Macrhybopsis(Hybopsis) meeki*)
Spotted bat (*Euderma maculatum*)
Sprague's pipit (*Anthus spragueii*)
Sturgeon chub (*Machybobpis (Hybopsis) gelida*)
Swift fox (*Vulpes velox*)
Tawny crescent butterfly (*Phyclodes batesi*)
Torrent sculpin (*Cottus rhotheus*)
Townsend's big-eared bat (*Plecotus townsendii*)
Trumpeter swan (*Cygnus buccinator*)
Westslope cutthroat trout (*Oncorhychus clarki lewisi*)
White-tailed prairie dog (*Cynomys leucurus*)
Wolverine (*Gulo gulo*)
Yellowstone cutthroat trout (*Oncorhychus clarki bouvieri*)

BUREAU OF LAND MANAGEMENT - SENSITIVE PLANT SPECIES

SCIENTIFIC NAME

Montana, North Dakota and South Dakota
Agastache cusickii
Arabis fecunda
Astragalus ceramicus apus
Astragalus geyeri
Astragalus scaphoides
Astragalus terminalis
Camissonia andina
Camissonia parvula
Carex crawei
Carex parryana idahoa
Cryptantha scoparia
Elymus flavescens
Eriogonum salsuginosum
Lesquerella carinata languida
Lesquerella lesicii
Lesquerella pulchella
Lomatium attenuatum
Malacothrix torreyi
Nama densum
Oenothera pallida idahoensis
Penstemon lemhiensis
Penstemon whippleanus
Quercus macrocarpa
Shoshonea pulvinata
Sphaeromeria argenta
Taraxacum eriophorum
Thalictrum alpinum
Thelypodium paniculatum

FOREST SERVICE, NORTHERN REGION - SENSITIVE PLANT SPECIES

SCIENTIFIC NAME

Montana
Agastache cusickii
Antennaria densifolia
Arabis fecunda
Astragalus barrii
Astragalus lackschewitzii
Astragalus scaphoides
Balsamorhiza macrophylla
Botrychium ascendens
Botrychium crenulatum
Botrychium hesperium
Botrychium montanum
Botrychium paradoxum
Botrychium pedunculosum
Bryoria subdivergens
Carex parryana ssp. idahoa
Castilleja covilleana
Castilleja gracillima
Cetraria subalpina
Cirsium longistylum
Collema curtisporum
Erigeron lackschewitzii
Grimmia brittoniae
Grindelia howellii
Haplopappus aberrans
Haplopappus carthamoides var. subsquarrosus
Lesquerella humilis
Lesquerella paysonii
Lesquerella pulchella
Lomatium geyeri
Oxytropis campestris var. columbiana
Penstemon lemhiensis
Phlox kelseyi var. missoulensis
Saussurea weberi
Saxifraga tempestiva
Shoshonea pulvinate
Waldsteinia idahoensis
Adoxa moschatellina
Allium acuminatum
Allium parvum
Allotropa virgata
Amerorchis rotundifolia
Aquilegia brevistyla
Asclepias ovalifolia
Athysanus pusillus
Bidens beckii
Brasenia schreberi

Carex amplifolia
Carex chordorrhiza
Carex gravida var. gravida
Carex livida
Carex paupercula
Carex prairea
Carex rostrata
Carex vaginata
Clarkia rhomboidea
Claytonia arenicola
Corydalis sempervirens
Cypripedium fasciculatum
Cypripedium parviflorum
Cypripedium passerinum
Diphasiastrum sitchense
Drosera anglica
Drosera linearis
Dryopteris cristata
Eleocharis rostellata
Elymus innovatus
Epipactis gigantea
Erigeron asperugineus
Erigeron evermannii
Eriophorum gracile
Eupatorium occidentale
Gentianopsis macounii
Gentianopsis simplex
Glossopetalon nevadense
Goodyera repens
Halimolobos perplexa var. lemhiensis
Haplopappus macronema var. macronema
Heteranthera dubia
Heterocodon rariflorum
Idahoa scapigera
Juncus hallii
Kalmia occidentalis
Lathyrus bijugatus
Liparis loeselii
Lomatogonium rotatum
Lycopodiella inundata
Lycopodium dendroideum
Meesia triquetra
Mertensia bella
Mimulus patulus
Mimulus primuloides
Ophioglossum pusillum
Orogenia fusiformis
Oxytropis podocarpa
Penstemon payettensis
Petasites frigidus var. nivalis
Phegopteris connectilis
Polygonum douglasii ssp. austinae
Potamogeton obtusifolius
Potentilla quinquefolia
Psilocarphus brevissimus
Ranunculus jovis
Salix barrattiana
Salix wolfii var. wolfii
Scheuchzeria palustris
Scirpus cespitosus
Scirpus subterminalis
Scorpidium scorpioides
Thalictrum alpinum
Trifolium eriocephalum
Trifolium gymnocarpon
Utricularia intermedia
Veratrum californicum
Viola renifolia

North Dakota and South Dakota
Astragalus barrii
Carex formosa
Chenopodium subglabrum
Eriogonum visheri
Athyrium filix-femina
Botrychium multifidum
Botrychium simplex
Campanula aparinoides
Carex alopecoidea
Carex leptalea
Collinsia parviflora
Cryptantha torreyana
Cyperus bipartitus
Cyperus diandrus
Cypripedium candidum
Cypripedium reginae
Dryopteris carthusiana
Dryopteris cristata
Equisetum palustre
Equisetum pratense
Eriogonum cernuum
Eriophorum gracile
Euonymus atropurpurea
Galium labradoricum
Gentiana affinis
Gymnocarpium dryopteris
Helianthemum bicknellii
Hudsonia tomentosa
Lechea stricta
Leucocrinum montanum
Liparis loeselii
Mentzelia pumila
Menyanthes trifoliata
Mertensia ciliata
Onoclea sensibilis
Ophioglossum pusillum
Phlox alyssifolia
Pinus flexilis
Populus x acuminata
Ribes cynosbati
Salix pedicellaris
Solidago flexicaulis
Sporobolus airoides
Thelypteris palustris
Townsendia hookeri
Triplasis purpurea