Little Belt, Castle, and North Half Crazy Mountains Travel Management Plan
Record of Decision

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I. INTRODUCTION

Motorized and non-motorized travel in the Little Belt Mountains, Castle Mountains, and north half of the Crazy Mountains has been managed for the past 19 years under regulations described on the 1988 Lewis and Clark Forest Travel Plan map for the Jefferson Division. In 2005, the Lewis and Clark National Forest proposed to revise and update the travel management plan for these three mountain ranges. In doing so, the Lewis and Clark National Forest proposed to designate roads, trails, and airfields that would be managed as system routes and comprise the Forest transportation system for these three mountain ranges.

The project area encompassed by this decision includes all National Forest System lands within the Little Belt Mountains (900,310 acres), Castle Mountains (79,820 acres), and north half of the Crazy Mountains (69,980 acres) on the Lewis and Clark National Forest. Four ranger districts are involved with management. The 1,050,110 acres encompassed by the analysis comprise about 86% of the lands within the Jefferson Division of the Lewis and Clark National Forest, or 53% of the entire area managed by the Lewis and Clark National Forest. Some references in the project file may refer to this area as the Jefferson Division because it comprises the majority (86%) of the Jefferson Division.

It is important to note that this decision **does not** include NFS lands within the Highwood Mountains, Little Snowy Mountains, and Big Snowy Mountains. Separate decisions for travel management in those three mountain ranges within the Jefferson Division were completed in 1993, 1993, and 2002 respectively. Those decisions remain in effect.

After careful consideration of the potential impacts of the alternatives analyzed and documented in the Little Belt-Castle-Crazy Mountains Travel Management Plan FEIS issued in October 2007, I have selected Summer Alternative 5 with several modifications. Also, I have selected Winter Alternative 2 with a few modifications. These modifications are captured in an electronic database, and displayed on the ROD maps of summer and winter travel management.

There is a tremendous amount of detail involved in all of the specific actions related to every segment of road and trail. Literally, there are about 6,094 lines of data to describe travel management on all of the segments of roads and trails involved. This tremendous amount of detail is captured in an electronic database that corresponds to an electronic Geographic Information Systems (GIS) map of the selected action. Tabular reports were not extracted from the database, because most people, including Forest Service employees, will find it tedious to read tabular lists and locate all segments of a particular road or trail of interest to them. It is much quicker to electronically query the database to extract information. Electronic copies (CDs) of the datatable and GIS map are in the project files, and are available upon request.

II. DECISION

I am making the decision to designate motorized use on specific roads and trails for recreation and general travel, the type of vehicle that will be allowed on the route, and the time of year or seasons when the use is appropriate. I am not making specific decisions about where motorized travel related to a commercial activity, or an activity specifically permitted such as grazing will occur. Motorized travel for some permitted uses may be authorized and controlled by the permit issued for the activity.

The public opinion is split on how the island ranges (Little Belt Mountains, Crazy Mountains, and Castle Mountains) should be managed for recreation opportunities provided by the designated road and trail system. Motorized users favored either Summer Alternative 1 or Summer Alternative 3, and Winter Alternative 1. Non-motorized users favored Summer Alternative 4, and Winter Alternative 2. After listening to the public, reading their comments and evaluating the effects documented in the analysis (FEIS), for summer I am choosing Summer Alternative 5 blended with parts of the other alternatives. I am selecting Winter Alternative 2 with a few minor changes as the decision for winter use.

As we consider the mix of motorized recreation opportunities across the entire Lewis and Clark National Forest it became clear that the Little Belt, Castle, and Crazy Mountain ranges are the most logical place to emphasize this type of use. These "island ranges" have provided motorized opportunities for many years and encompass areas that are suitable for motorized use. This decision will continue to emphasize motorized recreation opportunities in the Little Belts, consistent with expected increase in population and demand for motorized recreation. Management focus is on the diversity and quality of the recreational experiences offered rather than the quantity (miles of roads, trails or acres). Where possible within environmental constraints, I have allowed many existing uses to continue. In cases where water quality or secure wildlife habitat are issues, some uses will not be allowed to expand.

A number of individuals expressed concern about providing access for disabled hunters. District Rangers may choose to issue permits to allow disabled hunter access under regional policy. The comments we received on this issue have been very helpful in identifying many restricted roads the District Rangers can rotate into a disabled hunter access program.

Changes in routes designated for motorized travel are necessary to protect resources, but many opportunities for motorized use are provided for in my decision. Over 900 miles of system road allow passenger car travel (and travel for licensed ATV and motocycle riders). In addition over 200 miles of jeep trails provide more primitive 4-wheel opportunities for full size vehicles, ATVs and motorcycles. Approximately 90 miles of two track trails are open to ATVs and motorcycles, and 350 miles of single track trail are available to motorcycles. Based on comments provided by forest users, my decision also includes establishment of a primitive landing strip available for pilots, designated youth motorized areas, and many miles of groomed trails open to snowmobiling.

We also recognize a desire for recreation opportunities in the island ranges where users can enjoy quiet areas, free of the sounds of motors. In an effort to address the values and concerns we heard from the public, we considered the forest as a whole to balance motorized

and non-motorized recreation opportunities. The highest quality non-motorized experiences available on the Lewis and Clark National Forest are on the Rocky Mountain Ranger District and in the Bob Marshall Wilderness Complex. This area is nationally known for its diversity of wildlife species and the grandeur of its undeveloped character. The Big Snowy Mountains Wilderness Study Act Area also provides a large area (approximately 90,000 acres) where the public can enjoy a high quality non-motorized experience. This decision designates approximately 300 miles of non-motorized trails, one large area (approximately 60,000 acres) and several smaller non-motorized areas in the Little Belt, Castle, and Crazy Mountain ranges. Non-motorized areas in the Little Belt, Castle, and Crazy Mountain ranges provide a reasonable mix of opportunities for solitude for those engaged in non-motorized activities such as hiking, hunting, fishing, horseback riding, cross country skiing, snowshoeing and dog sledding.

ROD Table 1 summarizes summer motorized wheeled vehicle management for routes under Forest Service jurisdiction in each mountain range.

ROD Table 1.
Mileage Summary of Summer Motorized Wheeled Vehicle Management*

Time Period Restricted To Travel by Motorized Wheeled Vehicles (& Time Open to Travel)	**Mode of Travel**	**Castle Mtns.** Mileage	**Crazy Mtns.** Mileage	**Little Belt Mtns.** Mileage	**Total** Mileage
Motorized Wheeled Vehicle Travel Not Restricted:					
No Travel Restrictions (Open Yearlong)	Passenger Vehicle	31	26	527	**584**
	4x4 Vehicle	44	0	84	**128**
	ATV	20	5	96	**121**
	Motorcycle	0	0	37	**37**
Motorized Wheeled Vehicle Travel Restricted Seasonally:					
Restricted Seasonally* (Open Seasonally)	Passenger Vehicle	9	19	129	**157**
	4x4 Vehicle	11	0	39	**50**
	ATV	4	9	88	**101**
	Motorcycle	19	0	169	**188**
Motorized Wheeled Vehicle Travel Restricted Yearlong:					
Open yearlong to non-motorized travel (Closed to motorized travel)	Horse / Hike / Bicycle	41	65	453	**559**
	Hiking / Bicycle	0	0	14	**14**
GRAND TOTAL MILEAGE		**179**	**124**	**1,636**	**1,939**

*Mileages shown above are for routes under Forest Service jurisdiction only and may not correspond to mileages shown in other tables in the FEIS and ROD. Other tables may include mileages of routes that are under State, county, or private jurisdiction.

There were a great number of public comments about off-trail and off-road use of motor vehicles and we received many comments questioning the forest's ability to enforce any travel plan. The public expressed concern that some motorized users are not following the existing travel plan and that the forest is not doing enough enforcement to insure compliance. I heard this concern from virtually every user group. I share the publics concern about non-compliance with the new travel plan. Therefore, administrative actions have been identified

to improve compliance. For example, future budget requests will emphasize on the ground contacts with users. Additional law enforcement training will be provided for field going personnel, and alternative work schedules that put more employees in the field on weekends and holidays may be employed. We plan to continue working with organized user groups to help communicate to their members and the public the importance of complying with the travel plan. In addition, the recreating public has a responsibility to follow the new travel plan. We intend to monitor compliance as our employees are in the forest contacting the public. If new unauthorized motorized routes are becoming established, or motorized use on restricted routes are causing effects outside the scope of the effects analyzed in the FEIS, the District Rangers may choose to move the location of and type of motorized closures to locations that are easier to enforce. The goal will be to bring the effects in line with those disclosed in the FEIS. This may lead to a loss of motorized access in areas where the recreating public chooses not to comply with this travel plan decision.

I want to make it clear that use of motor vehicles off of designated trails and roads is currently illegal. This decision will designate the type of use allowed on each road and trail; off-road and off-trail use will continue to be illegal. We will continue to work with user education tools and law enforcement to reduce illegal use.

There are a number of roads across the National Forest that are under the jurisdiction of the various County governments. Nothing in my decision can or will change the jurisdiction of County roads, and travel on them will continue to be at the discretion of the local governments. In addition, the requirement that vehicles used on National Forest System Roads be “street legal” is still in place. State law will continue to apply to all “public” roads.

4x4 users expressed a desire for opportunities to travel on challenging low standard, low speed roads. My decision converts 169 miles of roads to 4x4 or jeep trails. ATVs, full-sized vehicles, including wider utility vehicles, and motorcycles are permitted to travel these routes. This will provide a semi-primitive motorized experience similar to the old jeep trails some of the public have talked about experiencing in the 1970s – 1980s. Maintenance of these trails will typically be limited to diverting water off these trails to reduce erosion and sediment delivery to streams, and to protect other natural resources; rather than for user comfort. This will maintain the type of challenging trail some seek for motorized recreation.

Finding a balance between motorized recreation opportunities and security for big game is a challenge. My decision complies with the Forest Land and Resource Management Plan (Forest Plan) direction for providing big game security. There are specific areas where there is not a large enough area for elk to feel secure in, and the high quality habitat for elk does not get fully utilized. As a result, total elk production is lower, and the elk in the area move to more secure areas like private land. This is an issue raised by the Montana Department of Fish Wildlife and Parks (MDFWP), and the public. There is a tension between providing a secure area for elk, and providing access for hunters to harvest elk. To address this, I have chosen a mix of tools: 1) Restricting motorized access after September 1st. 2) Restricting motorized access after October 15th. 3) Restricting all motorized access. By way of example, I have chosen a mix of these options in the area around and north of Deep Creek Park, and in the area from Oti Park east over the ridge north of Big Baldy down into the Dry Wolf drainage.

The issue of designating some roads for mixed traffic was considered as non-significant in the Draft EIS. Some public comment expressed an interest in this concept, and the new national OHV policy issued in 2005 recognized mixed traffic could be allowed as a management tool for recreation. Mixed use may also be authorized by the Forest Service under Montana State law. There are locations where allowing non-street legal motorcycles and ATVs on existing roads, concurrently with full size road vehicles would allow the motorized user to access longer motorized loops for a quality recreation experience. After considering all comments about this issue, reviewing the engineering safety evaluation of many roads, I have decided to allow mixed traffic on several specific roads. These roads will be posted open for mixed use once the mitigation work identified to increase safety has been completed. Examples include Jefferson Creek Road 267, Road 251 from Elk Saddle west to Weatherwax, Road 253 from Harley Park west to Central Park, and Jumping Creek Road 6413. Overall, about 3 miles of road in the Castle Mountains, and 172 miles of road in the Little Belt Mountains would be designated for mixed traffic.

I am selecting Alternative 2, with minor modifications, for winter motorized use. This alternative includes actions developed for the Little Belt Mountains negotiated in good faith by the Montana Snowmobile Association, Great Falls Cross-country Ski Club, Great Falls Snowmobile Club, and the Montana Wilderness Association. These groups crafted an alternative for winter use that addressed natural resource issues associated with snowmobile use and social issues as well. Some public comment has been critical of Alternative 2. However, this alternative does have the broadest base of public acceptance. I have modified Alternative 2 to protect wolverine denning habitat in the Castle Mountains, added protection for small areas of big game winter range on the southern edge of the Little Belt Mountains. These modifications add to the protection of natural resources that can be negatively impacted by snowmobile recreation. I have also modified alternative 2 by adding a couple snowmobile routes and play areas to address concerns we heard from snowmobile users that offered constructive comments. I have also added changes needed to acknowledge the jurisdiction of Cascade, and Judith Basin Counties on a few roads. Those groups who provided workable options are to be commended for working together to reach such a well thought out solution for winter recreation. This is a great example of how we all should work together to resolve issues concerning public land management. ROD Table 2 summarizes the acreage restricted/open by time of year to over-snow vehicle travel in each mountain range.

ROD Table 2.
Acreage Summary of Winter Motorized Over-Snow Vehicle Management

Time Period Restricted To Travel by Motorized Over-Snow Vehicles (& Time Open to Travel)	**Castle Mtns.** Acreage	**Crazy Mtns.** Acreage	**Little Belt Mtns.** Acreage	**Total** Acreage
Cross-Country Over-Snow Motorized Vehicle Travel Not Restricted Dec. 1 - May 1:				
No Travel Restrictions During Snow Season **(Open December 1 to May 1)**	55,085 (79%)	17,539 (30%	367,724 (46%)	**440,348 (48%)**
Cross-Country Over-Snow Motorized Vehicle Travel Restricted Yearlong:				
Closed to motorized over-snow travel **(Open to Non-Motorized Cross-Country Travel)**	14,535 (21%)	40,066 (70%)	428,641 (54%)	**483,242 (52%)**
GRAND TOTAL ACREAGE				**923,590**

Early snow in the big game hunting season could significantly reduce secure habitat available for elk. To balance snowmobile access with elk security, I have chosen a management strategy that does not pit user groups against each other, and I have decided to only allow cross country snowmobile travel between December 1st and May 1st. Prior to December 1st, snowmobiles are permitted to travel on roads and trails open for motor vehicle use in accordance with State Law.

Specifics:

In the Lower Tenderfoot Creek area, legal rights of way across the checkerboard private lands to the National Forest system lands have not been perfected. There is public interest for some motorized access into the Lower Tenderfoot Creek area. I considered: 1) natural resources issues, such as reducing noxious weed spread, reducing impacts to water quality, increasing the security of big game in the area), 2) the lack of legal access across private lands and the private landowners interests in not allowing motor vehicle use on their property, and 3) the public interest by some to have motorized access to the Tenderfoot area, and have decided to:

- Restrict motor vehicle use yearlong on Trail #354 for its entire length.
- Allow ATV and motorcycle use on Trail #345 to a point above Bald Hills, well above the boundary with private property. Below this point, the trail is open for foot and horse traffic only. This will provide a motorized recreation opportunity and yet not encourage trespass onto private lands. This trail will be open as a winter travel route.
- Implement a seasonal restriction on motorized use during the general hunting season on this trail. This will also provide additional big game security.
- The gate on Road #6424 is near the end of Meagher County's jurisdiction of the road. Below the gate the road is predominately on private land with some crossing of NFS lands. The Forest Service does not have a perfected easement for this road, and will work cooperatively with the landowners to resolve the access on this road.
- Restrict motor vehicle use along the entire length of Trail #342 yearlong, with the exception that motorcycle traffic will be allowed between the junction of Trail #342 and Trail #344 upstream to the junction of Trail #342 and Trail #349. This exception will facilitate a quality trail loop for motorcycles with greatly reduced impacts on water quality over the current conditions.

I have chosen to emphasize non-motorized recreation in the Middle Fork of the Judith Wilderness Study Act Area. I have chosen to keep Road #6531, and a new Road #N31 to be built to the bottom of Arch Coulee connecting Road #6531 to Road #825, and road #825 from the bottom of Arch Coulee upstream to the private land, open to motor vehicles. Additional site specific analysis will be needed before Road #N31 is constructed. This decision will retain legal historic motorized access by private landowners in the Middle Fork and eliminate half of the stream crossings by Road #825. I have chosen to allow motorcycles to use Trail #443 from the private land in the Middle Fork north to Woodchopper Ridge Trail #444. Woodchopper Ridge Trail #444 from its junction with Road #6531 to the junction with the Morris Creek Trail #435 will be open to motorcycles and ATVs. All of the Morris Creek Trail #435 will also be open to motorcycles and ATVs.

The Pilgrim Creek area is important to motorcycle users because of the loop opportunities it offers. Non-motorized users also like it because it is very near Great Falls and offers solitude and a wild experience. I understand why the non-motorized user would enjoy an opportunity close to Great Falls and my decision includes some trails open only to non-motorized uses in

Pilgrim Creek. However, I also understand the loop opportunities it provides for motorcycle users. This is an area I believe can be shared and I have decided to implement a timeshare opportunity on some of the trails in Pilgrim Creek. Use in this area will be alternated between non-motorized users and motorcycle users. The Belt Creek District Ranger, working with the user groups, will determine how best to implement the time share.

Deep Creek Park and the Smith River corridor is another area that is popular with motorized and non-motorized users. The Smith River Canyon provides a unique, world class floating experience in Montana. Floating the Smith River is by permit only. Permits are limited, and distributed and managed by MDFWP. Many respondents, including MDFWP, commented that the experience should not be diminished by increased motorized use. Motorized users, on the other hand, want to maintain, and in some cases increase, motorized access to the Smith River. There are several tracts of private land in the canyon bottom with private motorized access from the west. There is no legal unrestricted public access to the canyon from the west across the private lands. My decision will enhance the floating experience by restricting motorized access from the east across the National Forest system lands. This restriction includes the western portion of Deep Creek Park and motorized access to the Smith River, especially during the floating season. Motorcycles can access the river via a portion of trail #311 and Forest Road #263 after the floating season. The White Sulphur Springs District Ranger will coordinate with MDFWP as to when Trail #311 will be opened to motorized access each year. I expect the opening dates for motorcycle use to generally vary between July 15 and August 1 each year. Since a primary objective is to provide a quality floating experience, the dates may be later during years when high water extends the floating season longer into the summer.

Motorized access to the eastern portion of Deep Creek Park will provide a network of high quality motorcycle trail opportunities. ATVs will have access to the eastern edge of Deep Creek Park on Trail #338 and a portion of Trail #316. This decision will provide access to the area during hunting season to respond to MDFWP's request for hunter access. This hunter access on public land is intended to increase elk harvest, and by doing so, reduce the number of elk wintering on private lands north of the National Forest System lands. Allowing some motorized access to the Deep Creek area will also help balance public access with that provided by adjacent landowners and permitted outfitters.

As displayed in the FEIS, several trails, due to the location and nature of their construction are delivering unacceptable levels of sediment to streams or impacting westslope cutthroat trout habitat in other ways. Specific trails where this is an issue include: Hoover Creek Trail #732, Trail #735, Daisy Creek Trail #619, Tenderfoot Creek Trail #342, King Creek Trail #429, and the Middle Fork Road #825. Based on the level of use these trails receive, I have decided to:

- close King Creek Trail #429 to all use
- close Tenderfoot Creek Trail #342 to motorized use, with a short exception to facilitate a quality trail loop for motorcycles.
- close Hoover Creek Trail #732 #735 to motorized use and horse use.
- close Daisy Creek Trail #619 to motorized use
- close South Fork of the Judith Trail #440 and #439 to motorized use and horse use.

Once Hoover Creek Trail #732 and #735 have been reconstructed or repaired to eliminate sediment delivery to the creek, they may be opened for use by horses. Similarly, once the Daisy Creek Trail #619 has been reconstructed or repaired to eliminate sediment delivery to

the creek, it may be opened for motorized use. These three trails will require some additional limited site-specific analysis before ground disturbance occurs to determine the presence or absence of sensitive plants or cultural resources, and site-specific effects to some wildlife habitat, but additional analysis to allow horse use on Trails #732 and #735, and motorized use on Trail #619 will not be necessary.

MANAGEMENT ACTIONS SPECIFIC TO DECISION:

1. Designate routes for Hiking and Bicycle[1] Travel Only (no horses):

All or portions of routes listed in Appendix A and shown on Map 5 with a Travel Management code of 1.1, totaling about 14 miles would allow hiking and bicycle travel only. The use of stock and motorized wheeled trail vehicles would be restricted yearlong.

[1] Bicycles is a generic term that includes all forms of gear-driven mechanized transportation powered by human muscles, such as mountain bicycles.

2. Designate routes for Hiking, Bicycle[1], and Stock Travel (non-motorized):

All or portions of routes listed in Appendix A and shown on Map 5 with a Travel Management code of 1, 2, and 3, totaling about 559 miles would allow hiking, bicycle, and stock use only. Use of motorized wheeled trail vehicles would be restricted yearlong.

3. Designate routes for Motorcycle Travel (no ATVs or wider vehicles):

All or portions of routes listed in Appendix A and shown on Map 5 with a Travel Management code of 8, totaling about 37 miles would allow motorcycle travel yearlong. All or portions of routes listed in the database for Alternative 5M with a Travel Management code of 39, 22.4, 45, 4, 15 & 15.1, 44, and 32.1, totaling about 188 miles would allow motorcycle travel on a seasonal basis. Appendix A provides a summary of mileages restricted and open on a seasonal basis by vehicle class. All-Terrain-Vehicles and full-sized (passenger type) motor vehicles would be restricted yearlong.

4. Designate routes for ATV and Motorcycle Travel:

All or portions of routes listed in Appendix A and shown on Map 5 with a Travel Management code of 7, totaling about 121 miles would allow ATV and motorcycle travel yearlong. All or portions of routes listed in the database for Alternative 5M with a Travel Management code of 28.1, 40, 22.1, 21.2, 5 & 5.1, 6, 25.1, and 11, totaling about 101 miles would allow ATV and motorcycle travel on a seasonal basis. Appendix A provides a summary of mileages restricted and open on a seasonal basis by vehicle class. Non-motorized travel by hiking, stock, and bicycles[1] would be allowed yearlong on all of these routes. Full-sized (passenger type) motor vehicles would be restricted yearlong.

5. Designate routes for 4-Wheel Drive Vehicle Travel:

All or portions of routes listed in Appendix A and shown on Map 5 with a Travel Management code of 20.9, totaling about 128 miles would allow 4x4 vehicle, ATV, and

motorcycle travel yearlong. All or portions of routes listed in the database for Alternative 5M with a Travel Management code of 21.9, and 23.9, totaling about 50 miles would allow 4x4 vehicle, ATV, and motorcycle travel on a seasonal basis. Appendix A provides a summary of mileages restricted and open on a seasonal basis by vehicle class. Non-motorized travel by hiking, stock, and bicycles[1] would be allowed yearlong on all of these routes. These routes would be managed and maintained as trails, open to four-wheel drive and smaller classes of OHVs. They would not be maintained to be suitable for full-sized passenger-type vehicles.

6. Designate routes for Passenger Vehicle Travel:

All or portions of routes listed in Appendix A and shown on Map 5 with a Travel Management code of 20 and 20.1, totaling about 584 miles would allow full-sized (passenger type) vehicle, travel yearlong. All or portions of routes listed in the database for Alternative 5M with a Travel Management code of 28, 21 & 21.0, 22, 23 & 23.0, 24, 29 & 29.0, and 26 & 26.0, totaling about 157 miles would allow full-sized (passenger type) vehicle travel on a seasonal basis. Appendix A provides a summary of mileages restricted and open on a seasonal basis by vehicle class. Non-motorized travel by hiking, stock, and bicycles[1] would be allowed yearlong on all of these routes. These routes would be managed and maintained as roads, open to full-sized, passenger type vehicles.

7. Designate areas for Over-Snow Vehicle Travel:

Allow motorized over-snow cross-country travel from December 1 through May 1 on about 440,348 acres as shown on the ROD Winter Decision Map 6 and outlined in ROD Table 2. Restrict all motorized over-snow cross-country travel yearlong on about 483,242 acres as shown on the ROD Winter Decision map and outlined in ROD Table 2. Over-snow travel within closed areas would be allowed on designated snowmobile routes only.

8. Designate Groomed routes for Over-Snow Vehicle Travel:

Allow snow grooming to continue on about 290 miles of existing designated routes for over-snow motorized vehicle travel as shown on the ROD Winter Decision Map 6. Add about 14 miles of designated routes to the program and allow snow grooming on these new routes for over-snow motorized vehicle travel as shown on the ROD Winter Decision map.

9. Designate one area for Development of a Back-country Airstrip:

Allow development of a grass-surface landing strip for recreational aircraft in the vicinity of Russian Flats in the Little Belt mountain range. Details of design, size, amenities, cost to construct, maintenance, etc. will be determined through collaboration with interested parties.

10. Allow travel off Designated Motorized Routes for parking/passing/turning around.

Restricting motorized vehicles to designated routes has an inherent problem related to the constructed width of the travel-way. Long segments of constructed roads and trails are not wide enough to accommodate two vehicles passing one another, and most routes do not have constructed wide spots for parking or turning around. Some leeway has been allowed for

two-way traffic to be safely and reasonably accommodated on designated motorized vehicle routes. I have decided that motorized travel off all designated motorized roads and trails would be allowed for parking, passing, or turning around under the following criteria.

Wheeled vehicle off-road / off-trail travel exceptions - Motorized wheeled vehicle travel off the travel-way of designated system roads and off the constructed tread of designated system trails for **parking, passing, or turning around is allowed within the length of the vehicle and attached trailer** (unless signed otherwise) as long as:

1) parking/passing/turning around is accomplished within a minimum distance,
   [can be either perpendicular or parallel to the main travel-way]
2) parked vehicles and trailers do not impede traffic on the main traveled-way,
   [parked vehicles are off the edge of the road]
   [people exiting/entering parked vehicles can safely do so without stepping into traffic]
   [animals/OHVs/equipment can be safely unloaded/loaded without obstructing traffic]
3) no new permanent routes are created by this activity,
4) existing vegetation is not killed or removed,
5) no damage to soil or water resources occurs,
6) travel off route does not cross streams, and
7) travel off route does not traverse riparian or wet areas.

Snowmobile off-road / off-trail travel exceptions - Motorized over-snow vehicle travel off designated snowmobile roads and trails that go through a "restricted area" **is allowed within the standard width of a road right-of-way** (normally 66-feet wide, unless signed otherwise) for turning around or avoiding obstructions as long as:

1) no new permanent routes are created by this activity,
2) existing vegetation is not killed or removed, and
3) no damage to soil or water resources occurs.

11. Adopt some Previously Undetermined Routes. Designate and Manage them as System Routes.

Prior to the analysis, as many undetermined (non-system) roads and trails as could be located were inventoried. The analysis indicated that some undetermined routes were desirable for public use and were feasible to manage as part of the designated transportation system. Therefore, several undetermined routes described in previous sections have been incorporated into the official road and trail transportation network.

12. Eliminate Unneeded Roads and Trails.

During the analysis process, several roads and trails (both system and undetermined routes) were deemed unnecessary for public use and/or were contributing to undesirable resource degradation. All these routes would be closed to motorized travel yearlong under this decision. They would remain legally open to the public for foot, horse, and bicycle travel, but the agency would not encourage nor maintain the routes for such use. The simple action of prohibiting motorized traffic yearlong may be sufficient to allow some unneeded routes to naturally fade away. Other routes may take additional action to hasten re-growth of vegetation or repair resource degradation. The need for further actions to decommission some routes is expected to be addressed in separate analyses as deemed necessary by the District

Rangers and resource specialists. Approximately 568 miles of road and 138 miles of trail are expected to be eliminated as a result of this decision.

13. Designate Groomed and Ungroomed Routes for Cross-country Ski Travel:

Allow snow grooming to continue on about 8 miles of existing designated routes for cross-country ski travel as shown on the ROD Winter Decision map 6. Continue to designate about 23 miles of un-groomed routes for cross-country ski travel.

III. RATIONALE FOR THE DECISION

In reaching this decision, I strived to balance the opportunities for non-motorized and motorized travel on the Lewis & Clark National Forest. I considered past travel plan decisions in the Big Snowy Mountains, Highwood Mountains, and the current decisions for the Rocky Mountain Front. The decision includes measures to correct resource damage in an attainable timeframe, comply with existing laws, and provide quality motorized and non-motorized experiences. This decision will reduce the number of stream crossings and miles of motorized routes along streams. Some routes will be closed to horse travel as well as motorized travel in order to reduce sediment reaching streams

I would like to point out some of what I heard and read from the public comments. Motorized users commented they believe there is enough wilderness in Montana and that they are being closed out of many other areas. Many suggested that non-motorized users should go to the Rocky Mountain Front to enjoy a non-motorized experience. Non-motorized users commented that the motorized users have the vast majority of the area in the Little Belts and there should be more balance by identifying some large blocks of land for non-motorized uses. Both user types feel the other user has enough area and should go somewhere else to recreate. Many motorized users do not appear to understand, and in some cases accept, why motorized vehicles could ruin the quality of the experience for non-motorized users. At the same time, many non-motorized users do not appear to understand or accept why motorized users enjoy riding a motorcycle or ATV. For the motorized users, having several trails in an area that could be linked together, occasionally using the existing road network, was highly desirable. Pilots commented in favor of developing landing strips for their use while most non-motorized users and some motorized users commented against developing landing strips. There were others who made suggestions for compromise and their comments were greatly appreciated and were very helpful in reaching a decision.

Many areas on the Jefferson Division have been modified through mining, logging, grazing, road construction and user created routes. In some cases, past management has created resource challenges and reduced options with respect to travel management. A combination of terrain and location of some trails when constructed has limited the type of use that can be permitted. In most cases, trail reconstruction to accommodate a new use, such as widening a historic motorcycle or foot trail to accommodate ATV use, is not feasible and reduces management options. The analysis indicates there are many miles of motorized routes along riparian areas that are causing sediment to reach streams. Stream crossings (both motorized crossings and horse crossings) can contribute to sediment entering streams. Restricting the type of use allowed on several roads and trails will, in time, protect and improve water quality

and fisheries habitat. The changes on Trails #429, #342, #732, #735, #619, #440, #439, and changes on Road #825 are examples of actions to improve water quality. I realize that funding constraints and other practicalities prevent us from likely ever being able to maintain 100% of system roads and trails annually. Soil and Water Conservation Practices (comparable to Best Management Practices or BMPs) outlined in Forest Service Handbook 2509.22 does not require that all roads or trails be maintained on an annual basis, but that road maintenance occur at sufficient frequency to protect the investment in the road (same can be said for trails) to protect the investment in the road as well as prevent deterioration of the drainage structure function. I believe that taking actions like those described above will ensure BMPs are applied to meet Forest Plan direction with regard to water quality.

Several other important issues were considered in the analysis, including elk security, Westslope Cutthroat Trout habitat, Smith River Canyon, Montana Wilderness Study Act Area (Middle Fork of the Judith River), social conflicts, economics, road and trail densities, sensitive soils, law enforcement and our ability to maintain roads and trails. The FEIS documents the effects of the different alternatives with respect to these resource issues.

The US Forest Service does not always have legal public access across adjoining private lands. In some cases there is no legal public access across privately owned isolated tracts within the Forest boundary. Because of this, and in an attempt to be a good neighbor to the private landowners, some limitations have been imposed on routes designated as open for motorized use in cases where roads or trails cross private lands.

Where landowner access to the private land surrounded by National Forest System land has not been perfected, we will continue to work with those landowners to make sure their rights of access are recognized as directed under Alaska National Interest Lands Conservation Act (ANILCA). This may include motorized access under a special use permit, an exchange of legally perfected right-of-ways, or other tools. We will also continue to work with adjoining private landowners to secure legal access to public lands, based on the willingness of the private landowners to cooperate. There are no access agreements ready for a decision or connected to the travel plan at this time. As access agreements develop, they will be disclosed and analyzed as appropriate. Once access has been secured across private lands, the type of use allowed on specific trails may be re-assessed.

We will also work jointly with landowners to post signs at trailheads and property boundaries to inform the public they are entering private land and may need specific permission from the landowner.

I have chosen to restrict motorized uses on some roads and trails by specific dates in order to address resource issues such as elk calving and security, and hunting experience. One goal of the travel management effort was to minimize the number of different types of restrictions and dates, maintain recreation opportunities and flexibility, while meeting resource needs. What follows is a description of various restriction dates and reason for the restriction date:

- In areas with known elk calving and/or high quality habitat for elk calving, motor vehicle use is restricted until after 6/30.
- In areas near private land that lack secure habitat for elk, motor vehicle use is restricted after 9/1. This is intended to increase security for elk in the area, facilitating elk remaining on public land rather than moving to private land immediately when the

archery hunting season opens. This also responds to comments from those concerned that motorized uses can disperse elk during hunting season.

- In other areas that may lack secure habitat for elk we have restricted motor vehicle use after 10/15. This is intended to increase the security for elk in the area, facilitating the elk remaining on public land and producing a higher quality elk hunting experience.
- Motorized restrictions will be in place until 12/1, the nominal end of the general hunting season, to increase elk security.
- Motor vehicle use will be restricted from 12/1 until 5/15 in big game winter range.
- Motor vehicle use will be restricted until after 5/15 on roads and trails that may be susceptible to rutting by wheeled traffic that can lead to erosion and sediment delivery to streams, in order to allow the trails to dry out.

In some areas, a combination of restrictions for various resource reaons may mean routes are restricted to motorized uses from 9/1 until 6/30, or for other time periods.

Many motorized recreationists like to ride on the Forest in the fall months even if they are not hunters. I recognize the value of this recreation opportunity. To balance this with the security concerns for elk, and in cooperation with the MDFWP, I have chosen to leave a number of roads and trails open until October 15th. In cases where there was a site specific need to provide more security for elk during the fall, I have chosen to restrict motorized travel beginning September 1st. Both of these fall closure dates address another concern, expressed by many, for a quality elk hunt. I believe that by providing areas on the National Forest with lower motorized route densities, elk will seek these areas out. In the end, this will lead to areas with higher quality elk hunting opportunities.

We heard from some individuals that would like to see the travel plan be a flexible, adaptable plan. They have suggested we have the flexibility, based on monitoring results, to change the restriction dates. I agree in principle to this idea, however, for monitoring to provide information that restrictions are having the desired effect on elk use of an area, or some other positive or negative effect, may take 5 to 10 years. If monitoring indicates conditions have changed over this time period, the forest may complete additional environmental review and analysis to consider changes to the travel plan.

We heard from the public about the value of motorized trails that can be looped together for a longer, more varied riding experience. The interdisciplinary team searched for locations across the project area where specific trails can physically support ATV or motorcycle use, and where the number of trails in the immediate area would not negatively impact use of the area by big game. I have designated several trails and roads that can be linked into loops. An example includes jeep trails radiating out of Jellison Place north of Harlowton. These trails are open to ATVs, motorcycles, and jeeps and were specifically selected to provide a loop opportunity for ATVs. Another example is the motorcycle trails in the Deep Creek/Blankenbaker Flats/Monument Peak area.

I recognize that the highest quality non-motorized experiences available on the Lewis and Clark National Forest are on the Rocky Mountain Ranger District, in the Bob Marshall Wilderness Complex, and in the Big Snowy Mountains Wilderness Study Act Area. The public has expressed desire, however, for some non-motorized opportunities in the Little Belt, Castle, and Crazy Mountains. I have chosen the Middle Fork of the Judith Wilderness Study Area and, to a lesser extent, portions of the Deep Creek/Smith River Canyon/Tenderfoot

Creek area as areas in which to emphasize non-motorized, quiet use. When Congress passed the Montana Wilderness Study Act, it instructed the agency to maintain the wilderness character of the Middle Fork of the Judith Wilderness Study Act Area (WSA). Managing this area primarily for non-motorized use best accomplishes this goal until Congress decides whether or not the area should be designated as wilderness. Presently there is an abundance of motorized use in this area, some of which is necessary to access private land in the middle of the WSA. To balance the need to provide access to private land, the special "highlight of the summer" trip some of the trails provide for motorized users, with the need to maintain wilderness character, I have eliminated motorized use except for one connected complex of trails (approximately 12 miles) and the road system that accesses the private land.

Through development of alternatives and integration of other resource issues (like big game security, water quality, and recreation opportunities), other smaller blocks of non-motorized recreation have been created. Some of these notable smaller blocks include Deep Creek, Lower Tenderfoot Creek, Sawmill Gulch, Hoover Creek, and the east end of the Crazy Mountains.

My decision to select Alternative 5 with modifications (listed in a separate datatable and displayed on the ROD Decision maps) is consistent with all laws, regulations, and agency policy. I considered reasonably foreseeable activities and potential cumulative effects. I believe that my decision provides the best balance of management activities that respond to the purpose and need and issues. My decision also strikes a balance between competing interests such as the interest for unrestricted motorized recreation and need for wildlife habitat protection and enhancement.

The factors I used to make my decision on this project included:

- Achievement of the project's purpose and need (FEIS, pages 3-5)
- Relationship to environmental and social issues (FEIS, pages 29-310)
- Public comments (FEIS, pages 314-432)

The analysis and decision processes for this project are based on the consideration of the best available science. The manner in which best available science is addressed can be found throughout the disclosure of rationale found within the ROD, DEIS, FEIS, Response to Comments, Biological Assessments, and the project file.

A. Meeting the Purpose and Need

The purpose and need for action in regard to travel management in the Little Belt, Castle, and north half Crazy Mountains are based on Forest Plan goals, objectives, and standards. More specifically, this project addresses the purposes and needs discussed below.

A comprehensive evaluation on the best way to manage recreational travel has not been done since 1988. Due to recent trends in recreation use on the Forest, and the many resource and environmental protection issues that have emerged in the past decade, it is timely and appropriate to develop an updated travel management plan.

In general, the present road and trail system evolved incrementally over many decades based on site-specific demands for various recreational and management activities, and capabilities of the land to accommodate those activities. Use of roads and trails has changed substantially

since the last Travel Plan was signed in 1988. ATVs, while rare in 1988, have become common on many roads and trails. Use of snowmobiles has grown in popularity, as has the demand for cross-country skiing. Advances in technology now allow motorized vehicles to travel on terrain that they could not traverse in 1988. Demand for access by people with disabilities has increased. A new Travel Plan is needed to incorporate these changes in recreational demand and extent.

The 20 types of travel restrictions shown on the 1988 Travel Plan map for the Jefferson Division are confusing. Many visitors are unable to correctly interpret the map, and the 1988 map has errors. Non-system roads and trails exist on the landscape but are not shown on the map; hence visitors don't know what rules apply to traveling on them. Visitors are also confused when they encounter different travel restrictions as they cross from one National Forest to another. A new Travel Plan is needed that is simpler with fewer categories of restrictions. A new Travel Plan is also needed to comply with National standards for mapping, and to be consistent with adjoining National Forests.

Conflicts between different uses generally occur on trails and roads that are not designed to accommodate the types of uses allowed, or on trails and roads not designed for the level of use occurring. Also, conflicts can occur when visitors encounter other types of uses that they had not expected. A new Travel Plan is needed so that the road and trail system provides safe travel routes for an appropriate mix of uses.

In 2001, the Forest Service and Bureau of Land Management issued a joint decision to prohibit motorized cross-country travel on all National Forest System and BLM public lands in a three state area. This decision did not address winter travel. The decision also directed all National Forests to set up a schedule for completing site-specific planning that would designate appropriate uses on all system roads and trails, and establish how undetermined routes are to be managed. The Lewis and Clark National Forest determined that the Little Belt, Castle, and Crazy Mountains were a high priority for completing a detailed site-specific travel management plan.

Ever since the 1988 Travel Plan was issued, there have been questions about its legality. There is a need to complete an analysis of the effects of current travel management to comply with direction issued following appeal of the 1988 Travel Plan.

In 2005 the Forest Service promulgated new regulations governing OHV use throughout the National Forest System. These 2005 regulations mandate individual National Forests to complete travel plan analysis within 4 years, and designate the roads and trails where motorized vehicle use will be allowed. The Lewis and Clark National Forest expects the results of this travel planning decision to be in full compliance with the new regulations.

The purpose for this decision is to:

1. Provide for public access and recreation travel in the Little Belt, Castle, and Crazy mountain ranges, considering both the quantity and quality of recreation opportunities provided.
2. Bring use of the area, roads, and trails into compliance with laws, regulations, and other higher level management direction.
3. Provide for public understanding of the types of use and season of use allowed for each road and trail.

B. Consideration of Public Comments

The Interdisciplinary Team developed a Response to Comments for the project file, and these responses are summarized in the Final EIS. In addition, I have reviewed all the public comments made on the project. I have personally met with many groups and individuals interested in travel planning, as has the Deputy Forest Supervisor. I have also received feedback from the District Rangers, who met with local constituents on travel plan issues. These interactions played a key role in helping shape alternatives and gain a better understanding of needs and desires of a variety of user groups.

Public comment is reflected in the issues identified and addressed in the environmental analysis. Below is a detailed consideration of the issues as they relate to my decision and the other alternatives evaluated in the FEIS. It includes my decision rationale for the various resource issues and incorporates the concerns I heard from various publics.

C. Consideration of the Issues

Significant issues, as defined under 40 CFR 1501.7(a)(2), guided the range of alternatives and development of mitigation measures, and were used to incorporate into the analysis the measured effects of the alternatives. The issues focused the environmental disclosure on site-specific, direct, indirect, and cumulative effects that may occur under the alternatives. Other impacts and concerns were also analyzed and summarized as they related to the proposal as directed under 40 CFR 1501.7(a)(3). Issues identified in public scoping were similar to those identified by the Interdisciplinary Team. Similar issues were combined into one statement where appropriate. The team determined the following issues were significant issues. The following section addresses how my decision responds to these issues.

HERITAGE RESOURCES:

Potential for effects on other identified and unidentified archaeological and historical sites. As indicated in the FEIS, I have further considered cultural resources through the National Historic Preservation Act, Section 106 process, in order to avoid, minimize, or mitigate effects to cultural resources. I have chosen a stepped process. The Montana State Historic Preservation Officer (SHPO) has agreed with this approach. Consideration of effects with SHPO included the DEIS information as well as the final alternative outlined in the Record of Decision. Effects of the final alternative, relative to heritage resources, are summarized in the table below.

Under the stepped process, the first stage was identification of properties through the DEIS analysis. The second step included my consultation with the Montana State Historic Preservation Office (SHPO) about potentially affected sites and the NHPA Section 106 compliance. Our last step is to conduct individual site reviews under the methodology agreed upon with SHPO. For the sites and areas listed in the table below, archaeologists will conduct monitoring and inventories to provide or update site-specific information in order to finalize the NHPA Section 106 review. These detailed reviews will take place prior to the implementation of each of the related actions. In this manner, effects to archaeological and historical resources are addressed, effects minimized, and procedural requirements met.

ROD Table 3. Heritage Resources Comparison of Alternatives

FEATURE	SUMMER ALT. 1	SUMMER ALT. 3	SUMMER ALT. 4	SUMMER ALT. 5	SUMMER DECISION
Potential adverse effects to properties (2) *listed* on the National Registers of Historic Places/Lookouts.	0	1 site (Monument Lookout)	1 site (Monument Lookout)	1 site (Judith Station)	1 site (Judith Station)
Potential adverse effects to historic or prehistoric properties: number of NRHP- eligible or unevaluated sites that may require consultation or mitigation beyond scope of Programmatic Agreements.	0	20 sites	12 sites	17 sites	5 sites
Potential beneficial effects to historic or prehistoric resources: miles of recorded road or trail where types of use are reduced; number of sites where type of access will be reduced.	n. a.	0 mi. 15 sites	51.5 mi. 35 sites	17 mi. 21 sites	13 mi. 18 sites
Effects to potentially undiscovered cultural properties: linear miles of field survey required for Section 106 review. (Includes estimates for proposed construction/reroutes and for adopted routes).	n. a.	+/- 322.5 mi.	+/- 123 mi.	+/- 143 mi.	+/- 163 mi.
Historic routes closed: number and miles to be recorded, closure based on SHPO consultation.	n. a.	15 rtes 21.5 mi.	19 rtes 35.5 mi.	21 rtes 38 mi.	27 rtes 59 mi.

LAW ENFORCEMENT:

My decision identifies actions I will take to address concerns about the ability to enforce the travel plan. I realize it will take time for people to get accustomed to a new travel plan, but I also will not tolerate noncompliance; this could lead to a loss of motorized access to areas where such noncompliance is taking place. On-the-ground conacts with users, additional law enforcement training, and alternative work schedules are some of the tools we can use to improve compliance. I also expect user groups to communicate the importance of complying with the travel plan. In addition, the recreating public has a responsibility to follow the new travel plan.

RECREATION:

Opportunities for a full spectrum of summer recreation activities. As shown in ROD Table 4 and displayed in ROD Map 2, the decision:

- Provides more non-motorized acres than any alternative except Alt. 4, although, as with all other alternatives, the analysis area remains largely motorized, with 75% of the total acres being motorized. This is because 65% of the analysis area is within ½ mile of a road.

- Doubles non-motorized acres of existing situation and Alt. 3
  - Crazy Mountains include three times the non-motorized acres of Alt. 1 and 3, and, unlike any other alternative, provides for Primitive Recreation Opportunity Setting (ROS) setting, includes over 4,000 acres of Primitive ROS setting.
  - Little Belts contain more non-motorized ROS settings than any alternative except Alt.4
- Contains more Primitive ROS settings than any alternative except Alt. 4
- Provides more motorized opportunities in the Castles than alternatives 4 and 5.

ROD Table 4. Summer ROS Acreage by Alternative and Mountain Range

SUMMER ROS CLASSIFICATION	SUMMER ALT. 1	SUMMER ALT. 3	SUMMER ALT. 4	SUMMER ALT. 5	SUMMER DECISION*
Castles					
Rural	0	0	0	0	0
Roaded Natural	49,063 (70%)	49,068 (70%)	49,069 (70%)	48,277 (69%)	37,445 (54%)
Semi-Primitive Motorized	18,568 (27%)	18,564 (27%)	0	8,394 (12%)	24,559 (35%)
Semi-Primitive Non-motorized	1,991 (3%)	1,990 (3%)	20,553 (30%)	12,951 (19%)	7,612 (11%)
Primitive	0	0	0	0	
Crazies					
Rural	0	0	0	0	0
Roaded Natural	30,788 (54%)	30,429 (53%)	30,075 (52%)	27,270 (47%)	26,436 (46%)
Semi-Primitive Motorized	17,489 (30%)	17,489 (30%)	0	1,892 (3%)	2,752 (5%)
Semi-Primitive Non-motorized	9,316 (16%)	9,675 (17%)	27,518 (48%)	28,431 (50%)	24,285 ((42%)
Primitive	0	0	0	0	4,118 (7%)
Little Belts					
Rural	2,228 (<1%)	2,228 (<1%)	2,228 (<1%)	2,228 (<1%)	2,228 (<1%)
Roaded Natural	522,995 (66%)	501,501 (63%)	507,240 (64%)	480,782 (60%)	423,496 (53%)
Semi-Primitive Motorized	176,182 (22%)	182,876 (23%)	49,169 (6%)	153,448 (19%)	179,747 (23%)
Semi-Primitive Non-motorized	94,944 (12%)	109,744 (14%)	210,916 (27%)	152,137 (19%)	184,728 (23%)
Primitive	0	0	26,796 (3%)	7,754 (1%)	6,149 (1%)
Total Acres by ROS setting					
Rural	2,228 (<1%)	2,228 (<1%)	2,228 (<1%)	2,228 (<1%)	2,228 (<1%)
Roaded Natural	602,846 (65%)	580,998 (63%)	586,384 (64%)	556,329 (60%)	487,377 (53%)
Semi-Primitive Motorized	212,239 (23%)	218,929 (24%)	49,169 (5%)	163,735 (18%)	207,058 (22%)
Semi-Primitive Non-motorized	106,251 (12%)	121,410 (13%)	258,987 (28%)	193,519 (21%)	216,625 (23%)
Primitive	0	0	26,796 (3%)	7,753 (1%)	10,267 (1%)
Total Motorized Acres by ROS setting and % of total analysis area	817,313 88%	802,154 87%	637,781 69%	722,292 78%	696,663 75%
Total Non-motorized Acres by ROS setting and % of total analysis area	106,251 12%	121,410 13%	285,783 31%	200,913 22%	226,892 25%

*In the Summer Decision, acreages reflect motorized trail use in the Pilgrim Creek drainage in the Little Belt Mountains. This trail system will seasonally change from motorized to non-motorized. When that trail system is non-motorized, acres of non-motorized ROS settings will increase.

A comparison of ROD Table 1, Appendix A, and ROD Table 4 with tables presented in the recreation analysis in the Final EIS, shows that the decision provides:

- Less miles of open roads than any analyzed alternative. This is partially because the decision creates 4x4 trails, converting 169 miles of road to 4x4 trails.
- More miles of non-motorized trails than any alternative except Alt. 4.
- More miles of motorized trails, including motorcycle, than any alternative except Alts. 1 and 3.
- More miles of ATV trail than any other alternative. It includes 169 miles of 4x4 trails, none of which are found in any other alternatives. These will readily accommodate ATV needs, as well as other motorized vehicles. They will also accommodate young riders 12 to 16 years of age and non-street legal vehicles
- Significantly less single track motorized trail for motorcyclists than Alts. 1 and 3, and slightly less than Alt. 5, but significantly more than Alt. 4.
- Roughly the same miles of high clearance road open as Alternatives 4 and 5, but less than Alternatives 1 and 3.
- Maximum opportunities for ATV use on a combination of desirable high clearance roads and 4x4 trails.
- Slightly more large non-motorized blocks than any alternative except Alt. 4. These accommodate non-motorized hunting and quiet recreation better than any alternative except Alt. 4.
- One block that exceeds 71,000 acres in the Middle Fork Judith.

Map 1 shows the location and size of 7 large non-motorized blocks that are not based on ROS, but depict the large non-motorized areas adjacent to motorized access routes. These 7 "large quiet areas" include the almost 19,000 acre Deep Creek area, 38,100 acre Tenderfoot area, and the 71,300 acre Middle Fork Judith area.

As shown in ROD Table 5 the decision converts less undetermined roads into system roads than any alternative, but keeps the second highest mileage of undetermined roads and trails, converting 11% of them to system trails. It follows policy to keep only those undetermined roads and trails that meet the needs of the forest.

ROD Table 5. Undetermined Roads and Trails becoming System Roads and Trails in Miles by Alternative*

Trail Opportunities In Miles by Alternative/Activity	SUMMER ALT. 1	SUMMER ALT. 3	SUMMER ALT. 4	SUMMER ALT. 5	SUMMER DECISION
Undetermined Roads becoming system roads	**0**	46	45	54	18
Undetermined roads and trails becoming system trails	**0**	54	38	89	84
Total miles of roads and trails	**0**	**100**	**83**	**143**	**102**

*Alternative 1, while converting no undetermined roads or trails to system roads or trails, kept all 495 undetermined miles of road and 268 miles of undetermined trail for public use. In Alternatives 3, 4, and 5 above, only the undetermined roads and trails converted to system roads and trails were kept. All others were eliminated.

As shown in ROD Table 6, the decision for road and trail construction/reconstruction is exactly the same as all action alternatives. The decision provides fewer miles of open road than other alternatives. Nevertheless, the analysis area provides many miles of road opportunities for those limited to road driving experiences. The decision converts 169 miles of road to 4x4 trails, unlike any other alternative. This enables it to provide significantly more miles of ATV trail that can be used by older or disabled riders than any other alternative.

ROD Table 6. Road and Trail Construction / Reconstruction in Miles by Alternative*

Activity	SUMMER ALT. 1	SUMMER ALT. 3	SUMMER ALT. 4	SUMMER ALT. 5	SUMMER DECISION
Road Construction or Reconstruction	0	5	5	5	5
Trail Construction or Reconstruction	0	127	127	127	127
Total miles	**0**	**132**	**132**	**132**	**132**

*Does not include existing annual construction/reconstruction program, which emphasizes work on the existing system

Opportunities for airfields. My decision provides one airfield at Russian Flat in a Roaded Natural ROS setting. It will be located out of sight of Memorial Way Road, where possible, so that visual quality objectives from the road are met. This location may be visible and aircraft use may be heard from the campground, but the campground is very limited in size and use, and the airfield will be located as far from the campground as possible. This airfield provides the least impact of any proposed airfield, and will provide an opportunity for the flying community to access the Little Belts on the National Forest.

Cumulative effects of past closures on opportunities for motorized recreation. My decision does the best job of any alternative in attempting to improve motorized recreation opportunities within resource constraints imposed by the Forest Plan and other Forest direction. It recognizes the need to maintain OHV and road vehicle opportunities, and the importance of loops. It recognizes that motorized use on other Forests and this Forest are being reduced, especially in the non-winter season, because of resource concerns, and it reflects close work with the motorized and non-motorized communities to provide for the needs of each group. My decision offers a balance between motorized and non-motorized recreation opportunities by providing a wide variety of ROS settings. Emphasis on the Rocky Mountain Ranger District is on non-motorized settings and opportunities, while emphasis on the eastern half of the Forest is on motorized opportunities. We strived to meet the needs of everyone for settings they seek.

Effects to outfitter-guide permittees. Outfitter-guides under special use permit for the Forest provide a valuable service for those elements of the public seeking a guided experience. Outfitter-guides will follow all motorized restrictions contained in this selected alternative.

Current and potential use levels by activity. The selected action, like all alternatives, will not affect anticipated use projections over the next couple of decades. For the most part, people will continue to feel uncrowded, although motorcycle use will be concentrated on fewer miles of trail than any alternative except Alt. 4. This is offset by retaining loops where possible, creating additional loop opportunities by using mixed traffic roads, and creating many more miles of opportunity through the designation of 169 miles of 4x4 trail suitable for all OHV use. My decision provides the second best mix of ROS settings, and separation of motorized and non-motorized users, after Alternative 4, providing needed variety in recreation opportunities. My decision reduces conflict better than any other alternative by protecting and enhancing motorized opportunities while creating some larger blocks of non-motorized recreation opportunities. Under my decision, the ATV trail and high clearance road system are the longest of all alternatives and will best provide for that use, and an increasingly older population using road vehicles and ATV's, while meeting other resource needs.

While my decision reduces the number of miles of open road more than other alternatives, the area will remain predominantly roaded, offering many miles of driving opportunities for the public. The physical capacity of trails will not be exceeded, in light of both use projections over the long term, protection and development of loop opportunities, and designation of 169 miles of 4x4 trails suitable for all high-clearance road vehicle and OHV use. My decision provides the best distribution of motorized and non-motorized settings across the analysis area. Unlike Alternative 4, it accommodates the desire for loop trails and extensive opportunities for motorized use.

Opportunities for diverse winter recreation. My decision incorporates the Winter Resolution developed for the Little Belts as shown in Alt. 2, but like Alt. 3, it adds several miles of groomed snowmobile trail in the Little Belts in the area south of Jumping Creek Campground between Green and Smokey Mountain. Snowmobile use is allowed in this area in all alternatives, but the new groomed trails will enhance snowmobiling opportunities. Like all alternatives, my decision retains 290 miles of existing groomed snowmobile and cross-country ski trails. It reduces by half the available acres open to snowmobiling in Alt. 1, reducing it from 95% of the analysis area to 46%, a larger reduction than any other alternative. Unlike the existing condition (Alt. 1) but like Alternative 2, my decision eliminates snowmobiling in the Middle Fork Judith area; Deep Creek area; and Smith River area of the Forest. Unlike Alt. 2, it allows a mix of motorized and non-motorized areas in the Tenderfoot Creek area.

ROD Table 7. Snowmobiling Acres Available by Mountain Range

Restrictions	WINTER ALT. 1	WINTER ALT. 2	WINTER ALT. 3	WINTER DECISION
Snowmobiling Not Allowed During December to May Season				
Castles	2,507 (4%)	8593 (12%)	22,330 (32%)	14,535 (21%)
Crazies	0	31,431 (55%)	39,485 (69%)	40,066 (70%)
Little Belts	44,623 (6%)	429,128 (54%)	268,708 (34%)	428,641 (54%)
Sub-Total	**47,130 (5%)**	**469,152 (49%)**	**330,523 (36%)**	**483,242 (54%)**

Snowmobiling Allowed During December to May Season				
Castles	67,113 (96%)	61,026 (88%)	47,289 (68%)	55,085 (79%)
Crazies	57,610 (100%)	26,175 (45%)	18,120 (31%)	17,539 (30%)
Little Belts	751,737 (94%)	367,237 (46%)	527,658 (66%)	367,724 (46%)
Sub-Total	**876,460 (95%)**	**454,438 (51%)**	**593,067 (64%)**	**440,348 (46%)**
Grand Total Acreage	**923,590**	**923,590**	**923,590**	**923,590**

ROD Table 8.
Winter Snowmobiling Available in Little Belts by Selected Areas

AREA	WINTER ALT. 1	WINTER ALT. 2	WINTER ALT. 3	WINTER DECISION
Middle Fork Judith WSA	Yes	No	Yes	No
Deep Creek	Yes	No	Mix	No
Tenderfoot Creek	Yes	No	Mix	Mix
Smith River	Yes	No	No	No

Smith River corridor recreation, motorized and non-motorized trail access. As shown in ROD Table 9, my decision protects the solitude and unique floating experience of the Smith River, while providing limited motorcycle access to the river along Trail 263 after the floating season is largely completed. It avoids potential conflicts between motorized users and floaters at boat camps during the floating season. It makes Trail 311 non-motorized, and supports the construction of motorized trail access around private land owned by Anderson. Additional NEPA analysis will be required to determine potential impacts and best location for this trail reroute.

ROD Table 9. Motorized / Non-motorized Trail Access to the Smith River Corridor

Smith River Summer Season Travel*	SUMMER ALT. 1	SUMMER ALT. 3	SUMMER ALT. 4	SUMMER ALT. 5	SUMMER DECISION
Number of Motorized Trails w/ Access into the Smith River corridor	3*	4**	0	1***	1****
Number of Non-motorized Trails w/ Access into the Smith River corridor	1	0	4	4	4

** 2 motor cycle trails and 1 ATV/motorcycle trail*
*** 2 ATV/motorcycle trails and 2 Motorcycle trails*
**** 1 Motorized ATV/motorcycle trail.*
All trails provide for non-motorized use yearlong.
*****1Motorized single track motorcycle trail*

Consistency with adjacent National Forest travel management planning. We have coordinated with the Gallatin National Forest in the management of lands where we share a common boundary in the Crazy Mountains. Our travel management decision for the north half of the Crazies is consistent with the management decision made for the south half of the mountain range.

ROADLESS/WILDERNESS:

Current and potential effects on Inventoried Roadless Areas and one WSA. ROD Table-10 provides a quantitative comparison of the amount of motorized and non-motorized routes and areas (in the case of winter snowmobiling) within inventoried roadless areas and the Middle Fork Judith Wilderness Study Area by alternative, including the selected action. The selected action reduces the amount of open roads (open either yearlong or seasonally) within inventoried roadless areas more than any of the other alternatives. About 46 miles of road within inventoried roadless areas would be converted to 4X4 trails. The selected alternative for winter travel reduces areas open to cross-country snowmobile within the Middle Fork Judith WSA and other inventoried roadless area from what currently exists.

Miles of motorized routes or presence of airstrips were used to compare effects to opportunities for solitude or primitive recreational experience. An increase in the amount of ATV over two-track routes was used to determine differences in effects to apparent naturalness. Construction of new ATV trails or development of airstrips would have an effect on natural integrity and apparent naturalness by disturbing a larger area of soil and vegetation. Opportunities for solitude would be reduced in these previously trail-less areas as motorized use becomes established.

ROD Table-11 provides a qualitative comparison of how each alternative affects principal roadless or wilderness characteristics. This table is based on the consideration of miles of open road, miles of undetermined roads converted to system roads, miles of ATV routes, miles of motorcycle trails, open snowmobile areas, airstrips, and consideration of areas with quiet trail opportunities.

The primary difference between the selected action and alternatives analyzed in the FEIS with regard to effects on roadless or wilderness characteristics are:

- The selected action reduces the amount of road open to highway vehicle travel in the Middle Fork Judith WSA. The miles of road open to highway vehicles is between those identified in Alternatives 4 and 5. While initial impacts to wilderness study area characteristics may be similar between alternatives, subsequent restoration opportunities on roads closed to vehicle travel should reduce overall impacts to natural integrity in the WSA.
- The miles of trail open to motorized travel within the Middle Fork WSA is reduced from Alternative 5 and miles of non-motorized trails are increased. Opportunities for solitude in the WSA would be increased from Alternative 5, and similar to those that could be experienced under Alternative 4.

ROD Table 10. Roadless / WSA Comparison of Alternatives

ROADLESS / WSA	SUMMER ALT 1	SUMMER ALT 3	SUMMER ALT 4	SUMMER ALT 5	SUMMER DECISION
Middle Fork Judith WSA (and adjoining inventoried roadless area):					
Highway vehicle roads.	54	46	14	31	20
Trail bike / ATV trails and roads.	58	78	5	43	18
Horse/Hike/bicycle trails	38	77	113	56	73
Other Inventoried Roadless Areas (outside Middle Fork Judith):					
Highway vehicle roads.	216	130	98	121	58
Trail bike / ATV / 4x4 trails and roads.	418	407	88	265	35
Horse/Hike/bicycle trails	33	54	328	141	147

ROADLESS/WILDERNESS	WINTER ALT 1	WINTER ALT 2	WINTER ALT 3	WINTER DECISION
Middle Fork Judith WSA (and adjoining inventoried roadless area):				
Groomed/marked snowmobile trails.	1.5	1.5	1.5	1.5
Area open to snowmobiles.	90,486	11,822	71,259	11,822
Ski / Snowshoe only areas.	0	78,664	19,227	78,664
Other Inventoried Roadless Areas (outside Middle Fork Judith):				
Groomed/marked snowmobile trails.	0	0	0	0
Area open to snowmobiles	413,140	121,599	236,512	114,794
Ski / Snowshoe only areas.	4,326	295,867	180,954	301,188

ROD Table 11. Qualitative Comparison of Alternatives by Wilderness Characteristics

WILDERNESS CHARACTERISTIC	SUMMER ALT 1		SUMMER ALT 3		SUMMER ALT 4		SUMMER ALT 5		SUMMER DECISION	
	Roadless Areas	*Middle Fork Judith WSA*	*Roadless Areas*	*Middle Fork Judith WSA*	*Roadless Areas*	*Middle Fork Judith WSA*	*Roadless Areas*	*Middle Fork Judith WSA*	*Roadless Areas*	*Middle Fork Judith WSA*
Apparent Naturalness / Natural Integrity										
Miles of open road.	--	--	--	--	++	++	+	+	++	+
Convert undetermined roads to system road.	--	-	-	--	++	+	-	+	-	+
Airstrips.	+	+	--	--	+	+	+	+	+	+
Miles undetermined roads eliminated.	--	--	-	-	+	+	++	++	++	++
Opportunity for Solitude										
Miles non-motorized trail.	--	-	-	--	++	++	+	+	+	+
Areas of quiet uses.	-	-	--	--	++	++	+	+	+	+
Opportunity for Primitive Recreational Experience										
Miles motorized trail.	-	-	--	--	++	++	+	+	+	++
Convert road to trail.	--	-	+	+	-	+	-	+	+	+
	WINTER ALT 1		**WINTER ALT 2**		**WINTER ALT 3**		**NA**		**WINTER DECISION**	
Areas open to Snowmobile use.	+	+	++	++	-	-	n/a	n/a	++	++

(-- least responsive to maintaining roadless characteristics, - less responsive, + more responsive, ++ most responsive)

- Miles of motorized trails in other inventoried roadless areas has been increased over Alternative 5. Some of this increase results from conversion of about 46 miles of road to jeep trails, particularly in the Bluff Mountain, Castle Mountain, and Mount High roadless areas. 4X4 and passenger vehicles are allowed on these routes and there may not be a reduction in effects to either apparent naturalness or opportunities for solitude by converting these routes to motorized trails. Overall, the miles of road or trail open yearlong or seasonally to 4x4s or jeeps under the selected action is similar to that of Alternative 4 (about 112 miles).
- Acres of area open to snowmobiles in inventoried roadless areas is decreased in the selected action over Winter Alternative 2. Acres open to snowmobiles in the Middle Fork WSA are the same as Winter Alternative 2. Increased opportunities for solitude in the winter may result from providing more acreage for snowshoe or cross country skiing only.

SOCIAL-ECONOMICS:

Social conflict between motorized and non-motorized recreation, and potential economic effects from travel management. The analysis in the Final EIS indicated that none of the action alternatives would affect the local or State economy to any noticeable extent. My decision to emphasize motorized modes of travel in the Little Belt Mountains is expected to have very little influence on the local economy. It is unlikely that there will be a noticeable change in visitor use levels as a result of this decision.

SOILS:

Effects on soil quality from the existing road and trail system under current levels of maintenance. As with all action alternatives, the detrimental soil impacts from construction and use of roads and trails by different means of travel tend to be greater on sensitive soils. Detrimental impacts to soils tend to increase with greater levels of use and with kinds of use that exceed the physical capabilities of soils. Regular maintenance of roads and trails can help minimize soil impacts, especially erosion. Roads and trails with engineering designs and regular maintenance are generally more stable.

Certain soil and land types are identified as being “Sensitive” (Holdorf 1981). These soils have physical characteristics that may affect travel or be affected by travel routes. Sensitive soils are 1) soils with high clay contents in the subsoil layers that are prone to mass failure when cleared of vegetation or when cut by roads or trails; 2) thin, weakly developed soils on steep slopes that easily erode and are difficult to stabilize; 3) soils formed over shales that readily weather to clay and are unstable when wet; and 4) soils of floodplains or soils with shallow water tables that have easily damaged structure.

The two tables below don’t share the same map coding but do show the miles of roads and trails crossing land types with sensitive soils by travel class.

ROD Table 12. Miles of Roads and Trails Crossing Land Types with Sensitive Soils by Alternative and Travel Class on Forest Service Lands in the Soils Analysis Area (Same as Table III-62 in FEIS)

Map Coding– Road and Trail Class	Summer Alt. 1		Summer Alt. 3		Summer Alt. 4		Summer Alt. 5	
	Roads	Trails	Roads	Trails	Roads	Trails	Roads	Trails
1 -- Closed yearlong to all	48.0	10.8	50	21.3	65.3	134.5	59.8	66.7
2 -- Open to snowmobiles	3.0	5.9	1.3		1.3		2.5	1.8
3 -- Restricted snowmobile	50.7	7.0	28.8	0.7	33.9	0.7	27.3	5.1
4, 9, 15, 25.2, 39 - Restricted snowmobile and motorcycle	12.0	39.8	0.9	41.7	1.3	16	0.6	28.9
5, 6, 24.1, 40 – Restricted ATV, motorcycle, and snowmobile	8.3	13.0	20.8	4	6.6	2.8	15.1	11.9
7 – Open to ATV, motorcycle and snowmobile	2.4	45.6	9	82.1	3	38.1	2.8	39.3
8, 38 – Open motorcycle and snowmobile	0.6	72.7	0.5	58.3	0.5	7.5	0	19.8
11, 13, 18, 22.1, 41 – Restricted ATV and motorcycle	0	3.9	0	15.3	11.8	0.8	0	5.9
20 -- Open to all	414.9	4.1	277.3	0.9	272.3	2.7	244.3	0
16, 21, 22, 23, 24, 25, 27, 29 -- All motorized restricted	87.9	0.2	70.2	0	66	0	98.9	12.7
50-- Administrative	9.0	0	9.0	0	9.0	0	9.0	0
51-- Undefined	0.1	0	144.2	15.3	0	0	161.1	28.3
Totals	**636.9**	**203**	**612**	**227.8**	**471.0**	**203.1**	**621.3**	**220.4**

ROD Table 13. Miles of Roads and Trails Crossing Land Types with Sensitive Soils for Summer Decision on Forest Service Lands in the Soils Analysis Area

Map Coding—Road and Trail Class	Summer DECISION		
	Roads	Trails	Jeep Trails
Closed yearlong to all (1, 1.1, 2, 3)	93.0	70.3	0
Restricted motorcycle (4, 15, 21.4, 22.4, 32.1, 39, 44, 45)	0	51.7	0
Restricted motorcycle and ATV (5,6,11, 21.2, 24.1, 25.1, 28.1, 40)	0	17.2	0
Restricted road vehicle, ATV and motorcycle (21, 21.0, 21.9, 22, 23, 23.0, 23.9, 24, 25.9, 26.0, 28, 29, 29.0, 45)	60.3	0.2	0
Restricted road vehicle, ATV, motorcycle, Jeep (21.9, 23.9, 25.9)	0	0	11.1
Open yearlong to road vehicle, ATV, motorcycle (20, 20.1)	47.1	0	0
Open yearlong to ATV, motorcycle (7)	0	40.2	0
Open yearlong to motorcycle (8)	0	12.1	0
Open to all yearlong (20.9)	0	0	14.1
Administrative (50)	9.1	0	0
Undefined (51)	182.9	25.5	0
Open yearlong to road vehicle (20)	196.0	0	0
Totals	**588.4**	**217.2**	**25.2**

The total miles of roads and trails crossing sensitive soils for Alternatives 1, 3, 5 and the Decision are very similar. Even though the total miles of roads and trails for Alternative 4 appear less it is important to note that the totals for both ROD Tables 12 and 13 are calculated as if effective restoration of closed and decommissioned roads and trails, both system and undefined, has occurred. Restoration of soil and hydrologic functioning of these features are years away. Existing roads and trails would continue to be removed from the productive soils base and could continue to be a source of erosion and sediment until they are restored. Road closure methods could consist of a range of measures from a gated closure to a more effective restoration consisting of relieving compaction, recontouring, draining, grading and seeding (Switalski et al. 2004).

Soil quality concerns increase when the design and location of roads and trails are not adequate. Roads and trails with continuous, steep gradients are troublesome and costly to build and maintain with respect to soils (Gucinski et al. 2001). A single index of measure that would encompass most of the soils related concerns with road and trail routes that lack adequate design and location is difficult to pin down. One useful measure is a sustained route gradient of 15 percent or more for a route segment of one mile or more in length. With the current level of maintenance (approximately 3-9% of roads and 4-12% of trails are maintained yearly) these parameters are thought to highlight erosion and stability concerns. A summary of this information is found in ROD Table 14 below. Map 15 in the FEIS shows the extent of existing road and trail segments with gradients over 15 percent and lengths exceeding one mile.

ROD Table 14. Summary Table of Segments of Roads and Trails with Grades Over 15% and Lengths Exceeding 1 Mile on Forest Service Lands in the Soils Analysis Area

Alternative	Total Miles of Roads (Approximate)	Total Miles of Trails (Approximate)	Miles of Roads with Segments Steeper than 15% and Lengths Greater than 1 Mile	Miles of Trails with Segments Steeper than 15% and Lengths Greater than 1 Mile
1	1891	707	687 (36%)	503 (71%)
3	1788	810	618 (35%)	565 (70%)
4	1379	691	583 (42%)	468 (68%)
5	1816	831	641 (35%)	534 (64%)
5M	1809*	884	612* (34%)	576 (65%)

* Includes both roads and Jeep trails

As with miles of roads and trails crossing land types with sensitive soils there is little difference between Alternatives 1, 3, 5 and the Decision. Alternative 4 has the lowest total miles of segments with gradients steeper than 15 percent and lengths greater than 1 mile (1051) with Alternatives 1, 3, 5 and the Decision all very similar (1190, 1183, 1175 and 1188 respectively). Once again, the totals are calculated as if effective restoration of closed routes had occurred. Effective restoration of closed routes in the different alternatives could be years away.

Cumulative Effects for the decision are the same as those for Alt. 1 (No Action), which are described in the Effects Common to All Alternatives section under Soils in the FEIS.

VEGETATION:

Potential for increased spread of noxious weeds. The relative direct and indirect effect for each alternative is noted by an increase in miles of roads and trails at low risk of spreading weeds and, conversely, a decrease in miles in moderate to high risk (e.g., 190 mile change from Alternative 1 to the Decision -- 275% increase in low risk or 35% decrease in moderate & high risk). This is a relative risk analysis only. Low risk does not mean the elimination of the spread of noxious weeds, only that the risk is significantly lower than with the addition of motorized travel.

ROD Table 15. Miles of Road and Trail by Weed Risk and Alternative

Relative Risk of Weed Spread	Summer Alt. 1	Summer Alt. 3	Summer Alt. 4	Summer Alt. 5	Summer DECISION
Low Risk[1]	69	167	238	220	259
Moderate Risk	132	125	64	108	63
High Risk	415	324	314	288	294
Total Miles	**616**	**616**	**616**	**616**	**616**

[1] Low or no risk

Effects on sensitive plant species. As with Alternative 1, no systematic ground surveys were completed for the Decision. The analysis for the Decision is based on known sensitive plant occurrences as provided by the Montana Natural Heritage Program (MNHP 2006), the Lewis and Clark National Forest plant atlas, the Lewis and Clark National Forest's sensitive plant species geographic information system (GIS) probability model, and habitat potential as determined by habitat and site characteristics. Actions in the Decision have the potential to positively and negatively impact known sensitive plant populations. The Decision would eliminate 18 routes or portions of routes that intersect known plant populations. The number of plant populations that would be positively impacted through route elimination is listed in ROD Table 16. In several instances other open routes still intersect these populations. As with Summer Alternatives 3, 4, and 5, the Decision has the potential to negatively affect three Northern rattlesnake-plantain populations with the construction or opening of two roads.

ROD Table 16. Sensitive Plant Populations Positively Affected Through Route Elimination

	Summer Alt. 1	Summer Alt. 3	Summer Alt. 4	Summer Alt. 5	Summer DECISION
Northern rattlesnake-plantain	N/A	8	6	17	20
Short-styled columbine	N/A	3	2	4	6
Missoula phlox	N/A	3	3	3	3

There is a moderate probability that short-styled columbine is present along proposed route N9, northeast of road 263. There is also a high probability that short-styled columbine habitat is present adjacent to and intersecting the non-motorized trail construction routes proposed for the Sawmill Gulch, Wagner Gulch, and Logging Creek area. Short-styled columbine may also be present on the proposed route to be constructed between Logging Creek and Tobin

Gulch. In each of these instances, no sensitive plant species have been surveyed for or previously identified. Field surveys would need to be conducted prior to ground disturbing activities to determine habitat status and the presence of sensitive plants.

The Decision would allow motorized wheeled-vehicle travel off designated system roads and trails for parking or camping within one vehicle length of roads and trails, unless otherwise signed. If allowed in locations with known sensitive plant populations, travel off roads or trails has the potential to damage or remove plants. The exact impact would depend upon plant density and location and use of the off-route site.

The effects common to Alternatives 1, 3, 4, and 5 (FEIS Chapter III-Vegetation-Sensitive Plants 2.c.1. and 2.c.2.) also apply to the Decision.

WATER QUALITY:

Effects on water quality from the existing road and trail system under current levels of maintenance. The risk of detrimental impacts to water quality is greater at crossings and when roads and trails are within 100 feet of streams. The risk of detrimental impacts to water quality increases with greater levels of use on roads and trails, with some kinds of uses and with the lack of adequate maintenance of water controlling devises. Even though use levels on many roads and trails in the analysis area are not well documented, the number of crossings and miles of roads and trails within 100 feet of streams can provide comparisons of the risks to water quality between alternatives.

ROD Tables 17 and 18 display the miles of roads and trails within 100 feet of streams and the number of stream crossings organized by road and trail class by alternative. This table arrangement was chosen rather than one organized by watersheds since little difference is found between Action Alternatives by watersheds in total number of road and trail miles and number of crossings. However, there will be a significant reduction from the existing condition for these indices of road and trail impacts, based on use code, with the Action Alternatives.

ROD Table 17.
Summary of Road and Trail miles within 100' of Streams by Alternative*

Map Code	Existing	Alt3	Alt 4	Alt 5	Decision
Roads With No Restrictions	144	105.6	98.5	87.9	78
Roads with Seasonal Restrictions	13.5	13	13.2	15.5	15
Roads with Year Long Restrictions	22	23.2	32.1	30.4	28.1
Roads to Eliminate	0.8	27.5	28.2	39.2	43.4
Trails With No Restrictions on Trail Bikes	90.9	72.6	23.1	15.6	10.6
Trails with Seasonal Restrictions on Trail Bikes	26.2	33.5	15.3	48.1	48.1
Trails with Yearlong Restrictions on Trail Bikes	17.4	32.3	95.7	54.6	62.6
Trails with No Restriction on ATVs	30.4	42.7	16.7	8.3	6.3
Trails with Seasonal Restrictions on ATVs	13.3	9.5	7.3	18.6	19.3
Trails with Yearlong Restriction on ATVs	90.8	86.4	110.2	91.3	95.8
Trails to Eliminate	NA	9.8	10.4	22.3	20.2
Administrative Use	1.3	1.3	1.3	1.3	1.3
Undetermined Road to System Trail	NA	0.2	0.2	2.1	1.8

Map Code	Existing	Alt3	Alt 4	Alt 5	Decision
Undetermined Trail to System Trail	NA	3.4	2.5	2	1.7
Undetermined Road to System Road	NA	4.4	3.6	5.6	2.7
System Road to System Trail	NA	12.3	9.6	6.6	8.2
System Road/Trail to System Jeep Trail	NA	0	0	0	13.3
New Trail Construction	NA	3.3	0.8	0.4	0.4
New Road Construction	NA	1.3	1.3	1.2	1.2
New Created Miles within 100' of Stream	NA	4.6	2.1	1.6	1.6
Totals After Full Implementation of Alternative	315	282	279	253	251

*Includes perennial and intermittent streams crossings.

The size and complexity of the project area precludes the use of site specific models to estimate sediment loading to water ways. Variables and site specific conditions such as current status of the road/trail way, use levels by travel type, soils, slope, type of crossing, connectivity to waterway, and maintenance history would be needed to reliably quantify sediment impacts to water quality. This information is not consistently available across the Jefferson Division.

The specifics of decommissioning roads (methods, timing) have not been developed for this project. Decommissioning measures for roads could range from a gated closure to a more complete effort including relieving compaction, grading to contour, establishing permanent drain, and seeding. The rate of recovery of soil and hydrologic functioning would vary by site. Full recovery (soil and water functioning) of the sites chosen for decommissioning could be years away.

ROD Table 17 shows a shift from authorized motorized trails to non-motorized trails by Alternative. Alternatives 3 would eliminate motorized roads and trail miles by 33 miles compared to existing situation. Alternative 4 would eliminate 36 miles and Alternative 5 would eliminate 62 miles of existing motorized roads and trails within the 100-foot buffer. The Decision would eliminate an additional 2 miles of roads within the 100 foot buffer. All the alternatives would reduce the number of trail bike trails with no restrictions within 100 feet of perennial and intermittent streams from the existing 91 miles. Alternative 3 would reduce the trail bike trails with no restrictions to 73 miles, Alternative 4 to 23 miles, Alternative 5 to 15.6 miles and the Decision to 10.6. Although horse/stock traffic would still be authorized on trails open to non-motorized travel, and even though heavy levels of horse/stock traffic can impact soils, removal of motorized modes of travel would potentially be important for reducing erosion from soils of these trails. The Decision would reduce the number of road miles within the 100 foot buffer by 43, Alternative 5 by 39 with Alternative 4 reducing the miles by 28. Alternative 3 had the lowest reduction of road miles within 100 feet of a stream at 28. Current levels of ATV and motorcycle traffic on most of the trails under current management are not well documented to know if a reduction in impacts would be real if management were changed as proposed in the Action Alternatives. Even so, if trails with known moderate or greater levels of ATV and motorcycle traffic were to shift to non-motorized travel with light horse/stock use then a reduction of soil impacts and ultimately a reduction of vegetation removal, soil displacement, compaction, erosion and sedimentation would be expected with regular trail maintenance.

ROD Table 18 shows a summary of road and trail crossings by alternatives based on use. There are an estimated 2,122 road and trail crossings in the current system. All alternatives

would decrease the current number of system crossing. The decision would eliminate 561 crossings; the greatest number of crossings eliminated after implementation. Alternative 3 eliminates 291 crossings; the least amount of crossings of the three alternatives.

ROD Table 18.
Summary of Road and Trail Crossings of Streams by Summer Alternative*

Map Code	Existing	Alt3	Alt 4	Alt 5	Decision
Roads	1207	901	934	819	785
Trails	915	931	873	752	776
Roads With No Restrictions	914	629	607	482	473
Roads with Seasonal Restrictions	54	84	71	94	92
Roads with Year Long Restrictions	184	173	241	195	201
Roads to Eliminate	3	212	217	342	362
Trails With No Restrictions on Trail Bikes	655	515	199	131	105
Trails with Seasonal Restrictions on Trail Bikes	160	194	88	249	280
Trails with Yearlong Restrictions on Trail Bikes	100	222	586	341	326
Trails with No Restriction on ATVs	187	284	165	55	55
Trails with Seasonal Restrictions on ATVs	68	46	48	61	83
Trails with Yearlong Restriction on ATVs	660	601	660	529	573
Trails to Eliminate	NA	86	105	197	180
Administrative Use	15	15	15	15	15
Undetermined Road to System Trail	NA	2	2	19	16
Undetermined Trail to System Trail	NA	30	23	27	22
Undetermined Road to System Road	NA	25	20	32	17
System Road to System Trail	NA	97	60	31	48
System Road/Trail to System Jeep Trail	NA	0	0	0	12
New Trail Construction	NA	17	1	5	5
New Road Construction	NA	3	3	1	1
New Created Crossings	NA	20	4	6	6
Totals After Full Implementation of Alternative	2122	1832	1807	1571	1561

*Includes perennial and intermittent streams crossings.

Based on the analysis of the miles of road/trail miles within 100-feet of a stream and the number of road/trail crossings by alternatives, the Decision has the most potential for improvement to water resources followed by Alternative 5. Alternative 3 has the least potential for water resource improvement of all the alternatives. The elimination of road/trial crossings and their miles within the 100 foot buffer has a direct beneficial effect to water quality.

WILDLIFE / FISH:

The FEIS identified three significant issues for wildlife. These are: 1) potential for displacement of wildlife, 2) effects on seasonally important ranges for wildlife, and 3) potential effects of snow compaction. Each of the alternatives addresses the issues to varying degrees.

Potential for displacement of wildlife.

The Land and Resource Management Plan road density standards by Management Area are displayed in ROD Table 19. The Decision is within the road density standards. In particular, in Management Area D in the Castle Mountains road densities are reduced to 0.40 miles per square mile from the existing condition of 2.61 miles per square mile.

ROD Table 19. Open Road Density by Alternative (for all roads on NFS lands)

Management Area			Summer Alt. 1	Summer Alt. 3	Summer Alt. 4	Summer Alt. 5	Summer Decision
Area	Access Standard	(mi/mi^2)					
A	Moderate	1.5-3.0	2.16	1.32	1.35	1.21	1.34
B	Moderate	1.5-3.0	1.48	1.00	0.96	0.90	0.96
C	Low	0.5-1.5	1.53	1.08	1.04	1.00	0.87
D	Low*	< 2.5	2.61	2.12	2.12	2.12	0.40
E	Low	0.5-1.5	1.84	1.18	1.18	1.00	0.57
F	Minimize		0.20	0.18	0.10	0.14	0.12
G	Minimize		0.59	0.38	0.32	0.30	0.15
H	High	3.0 +	1.65	1.23	1.24	1.25	1.31
I	Low	0.5-1.5	1.83	1.68	1.12	1.08	0.59
J	No construction		0.56	0.24	0.24	0.24	0.06
K	Minimize		0.65	0.35	0.35	0.58	0.72
L	High	3.0 +	1.75	1.17	1.17	1.08	1.09
M	No construction		0.42	0.41	0.36	0.33	0.46
S	High	3.0 +	9.13	7.84	7.84	8.11	8.11

- Forest Plan Amendment 19 established an open road density of 2.5 miles per square miles in the Castle Mountains in Management Area D.

Habitat Effectiveness is a measure of the availability of habitat for elk use in the summer, based on road density. The analysis of habitat effectiveness was completed based on hunting district boundaries. Guidelines for habitat effectiveness in the Forest Plan is to maintain 50% habitat effectiveness in areas where elk are one of the primary resource considerations and 70% habitat effectiveness in areas intended to benefit elk summer range and retain high use. In the decision, all 11 of the hunting districts have habitat effectiveness over 50%. In addition, 6 of the hunting district have habitat effectiveness over 60%. Of these, hunting districts 413, 448, and 580 all have habitat effectiveness at 69%. Calculations for habitat effectiveness are located in the project record.

Effects on seasonally important ranges for wildlife.

ROD Table 20 shows the percentage of secure elk habitat for both the bow season (September 1 to October 14) and rifle season (October 15 to December 1) fro each of the alternatives and the Decision. During the bow season, security habitat is greater than 30 percent in 6 of the 11 hunting districts, an improvement over 0 out of 11 hunting districts in the existing condition (Alternative 1). In addition, in the remaining hunting districts, secure habitat is greater than 20% in all except hunting district 449. Hunting district 449 in the Castle Mountains currently has two percent security during the bow season. The Decision increases security to 13% during the bow season. As discussed in the FEIS, this hunting district has difficulties increasing security due to very little cover, high road densities and private land boundaries. In

the rifle season, the Decision increases security to greater than 30% in 9 of the 11 hunting districts. Hunting district 449 is increased to 13%, as during the bow season. Hunting district 454 has a security of 28%, slightly lower than Alternative 5 provides during the rifle season but higher than any of the other alternatives.

ROD Table 20. Percentage of Secure Elk Habitat* by Hunting Districts

Hunting District	Percent Secure Elk Habitat									
	Summer Alternative 1		Summer Alternative 3		Summer Alternative 4		Summer Alternative 5		Summer Decision	
	Bow Season	Rifle Season	Bow Season	Rifle Season	Bow Season	Rifle Season	Bow Season	Rifle Season	Bow Season	Rifle Season
413	26	31	35	35	62	62	45	55	46	51
416	15	16	19	19	22	23	29	36	27	33
418	14	22	17	28	26	34	21	47	24	40
420	15	29	16	32	16	33	35	38	35	38
432	23	29	25	36	38	43	31	44	34	44
448	23	36	23	33	44	46	36	43	40	46
449	2	6	10	10	11	11	12	12	13	13
452	23	23	20	30	58	58	44	44	38	51
454	13	22	20	25	22	25	23	32	24	28
540	15	17	18	29	33	36	27	37	28	38
580	18	41	23	33	45	45	45	45	41	45
Total	**19**	**26**	**23**	**30**	**39**	**41**	**33**	**42**	**34**	**41**

* (For summer motorized travel. Secure habitat values were calculated using all routes open to motorized travel within the Forest boundary.)

ROD Map 3 displays the elk security during the rifle hunting season by hunting district. In the FEIS, an additional analysis of habitat effectiveness and elk security by watershed (sixth hydrologic unit code) is reported. ROD Map 4 shows watersheds where habitat effectiveness is less than 50% and/or elk security is less than 30% in the Decision.

In completing the FEIS, we compared the areas open for motorized winter recreation to areas of elk security. We found that if early snows allowed snowmobile access prior to December 1, there could be a significant reduction in the amount of elk security habitat. ROD Table 21 displays the amount of secure habitat by summer alternative, followed by the amount that would remain if snowmobiles accessed the secure habitat prior to December 1 by Winter Alternative.

ROD Table 21. Potential Reductions in Elk Security Habitat Due to Early Snows

Alternative	Total security (if no early snows)	Winter Alt. 1	Winter Alt. 2	Winter Alt. 3
Summer Alternative 1	26%	13 %	22 %	10 %
Summer Alternative 3	30%	13 %	23 %	11 %
Summer Alternative 4	41%	20 %	32 %	14 %
Summer Alternative 5	42%	19 %	32 %	15 %
Summer Decision	41%	18 %	31 %	15 %

In elk calving habitat, the Summer Decision Alternative reduces the open route density in all hunting districts from the existing condition. Hunting district 540 has the highest route density in calving habitat at 2.06 miles per square mile, a reduction from 3.07 miles per square mile in the existing condition. In hunting district 413 the Decision eliminates all open routes in calving habitat.

In elk winter range, the Summer and Winter Decisions result in 44.3 miles of open road and 30.8 miles of open trail. This is a reduction from the existing 234.2 miles of open road and trail to 75.1 miles of open road and trail in elk winter range. In mule deer winter range, The Summer and Winter Decisions result in 43.8 miles of open road and 25.1 miles of open trail. This is a reduction from the existing 227.1 miles of open road and trail to 68.9 miles of open road and trail in elk winter range.

Potential effects of snow compaction.

The Winter Decision closes the elk winter range in two hunting districts (413 and 418) to snowmobiling. Three more hunting districts (432, 448, and 452) have less than 10% of the elk winter range open to snowmobiling. Hunting district 416 has 92% of the elk winter range open to snowmobiling, a reduction from 100% of the existing condition but more than the total closure of the winter range provided by Winter Alternative 3. Overall the Winter Decision results in 19% of elk winter range open to snowmobiling.

Mule deer winter range in hunting districts 416 and 420 is closed to snowmobiling in the Winter Decision. Hunting districts 413, 418, and 448 have less than 5% of mule deer winter range open to snowmobiling. Overall the Winter Decision results in 18% of mule deer winter range open to snowmobiling.

The Winter Decision closes the greatest amount of habitat within 1 km of potential wolverine denning habitat. Under the existing condition 98% of the area is open to snowmobiling. Under the Winter Decision 37% of the area is open. Under the Winter Decision the miles of snow routes within 1 km of potential denning habitat is increased from 23.5 to 97.2 miles of snowmobile route and from 2.8 to 11.6 miles of cross-country ski routes from the existing condition. The summer alternatives designate some routes as open from December 1 to May 15. These routes may be available to snowmobiles, or to passenger vehicles, ATV or motorcycles depending on conditions. Under the Summer Decision, 7.8 miles or roads and trails is open within 1 km of potential wolverine denning habitat in the Castle Mountains, 8.6 miles in the north half of the Crazy Mountains, and 240 Miles in the Little Belt Mountains. For Lynx, the Northern Rockies Lynx Amendment Guideline HU G11 states "(d)esignated over-the-snow routes or designated play areas should not expand outside baseline areas of consistent snow compaction, unless designation serves to consolidate use and improve lynx habitat." ROD Table 22 compares the miles of routes and % of area open by LAU between the Existing Condition and Decision. The first three columns must be added together when determining miles of consistent snow compaction. In the case of the Decision, LAU LB3 has an increase of compacted miles of 1.3 to accommodate a decrease in area open to cross-country snowmobile travel from 100% open to 26% open. LB10 goes from 97% open to 9% open, with a corresponding increase from 35.5 miles of consistent snow compaction to 49 miles.

ROD Table 22. Summary of Snowmobiling Opportunities from 12/1 to 5/1 by LAU

LAU		Miles of snowmobile routes open	Miles of road available to snowmobiles in areas open to cross-country travel	Miles of road available to snowmobiles in areas closed to cross-country travel	% of LAU open to cross-country snowmobile travel
CA1	Existing condition	0	13.1	0	100
	Decision	0	5.1	2.5	75
CA2	Existing condition	0	29.6	0	95
	Decision	0	4.0	0	93
CR1	Existing condition	0	53.2	0	100
	Decision	4.9	16.7	20.3	51
CR2	Existing condition	0	5.7	0	100
	Decision	0	0	3.3	0
LB1	Existing condition	0	31.6	0	100
	Decision	0	8.6	0	13
LB2	Existing condition	0	22.4	0	100
	Decision	5.8	8.9	2.1	19
LB3	Existing condition	0	17	0	100
	Decision	5.6	7.3	5.4	26
LB4	Existing condition	0	52.3	0	100
	Decision	15.9	22.4	4.6	23
LB5	Existing condition	0	16.6	0	87
	Decision	1.5	0	0	21
LB6	Existing condition	0.7	10.4	0	100
	Decision	1.9	7.5	0.7	13
LB7	Existing condition	9	62.4	0	100
	Decision	9	30.7	0.1	73
LB8	Existing condition	13.4	65.8	0	100
	Decision	20.9	23.2	1.3	94
LB9	Existing condition	16.6	98.0	1.6	97
	Decision	27.0	46.9	7.2	79
LB10	Existing condition	0	34.6	0.9	97
	Decision	18.7	12.4	17.9	9
LB11	Existing condition	0	32.4	2.0	91
	Decision	6.0	10.0	10.0	8
LB12	Existing condition	10.9	33.9	0	100
	Decision	10.9	12.2	0.6	92
LB13	Existing condition	44.3	120.7	0	100
	Decision	44.4	35.4	0.1	100
LB14	Existing condition	44.0	107.9	8.2	97
	Decision	40.7	46.3	7.9	65
LB15	Existing condition	8.9	44.3	0	100
	Decision	15.0	16.4	1.5	38
LB16	Existing condition	29.2	60.2	0	100
	Decision	32.3	39.0	0	100
LB17	Existing condition	9.9	25.4	0	100
	Decision	11.8	3.4	0.6	20
LB18	Existing condition	64.1	112.7	0	100
	Decision	64.1	46.0	1.3	96
LB19	Existing condition	8.5	37.5	0	90
	Decision	8.5	21.6	0	90
LB20	Existing condition	0	21.3	0	100
	Decision	0	0	0	0
LB21	Existing condition	0	44.6	0	100
	Decision	0	0	0	92

Effects on fish habitat and fish populations. Fish habitats are most directly affected by roads and trails when erosion delivers sediment to streams, thereby smothering spawning gravels, clogging interstitial substrate spaces used by fish and aquatic insects, and filling in pool habitat. Secondarily, stream channels are physically altered at road and trail crossing sites in ways that reduce habitat quality, or in the case of fords, crush incubating fish embryos and invertebrate food organisms, introduce additional silt and sand from tire treads, re-suspend deposited sediments, & undermine channel stability by breaking down stream banks.

Information on road and trail miles within 100 feet of perennial and intermittent streams ("riparian roads and trails") and number of stream crossings derived in the Water Quality analysis was used, along with fisheries survey information, to evaluate effects of the alternatives on fisheries resources. With closure and decommissioning of excess routes, all of the action alternatives represent a decrease in impact to fish habitats from the existing condition. However, as displayed in ROD Tables 17 and 18 (see Water Quality rationale), the Summer Decision will eventually achieve the greatest reduction in aquatic impacts: 20% less riparian road and trail mileage and 26% fewer stream crossings than the existing condition.

For most watersheds where roads and trails have the highest potential to impact fish habitats, the Summer Decision will also eventually result in the fewest stream crossings of all action alternatives (ROD Table 23). These reductions are expected to be especially beneficial to fisheries in upper Sheep Creek, upper Belt Creek, Cleveland Creek, Harrison Creek, South Fork Judith River, and Middle Fork Judith River. In other aspects, the effects of the Summer Decision on fisheries resources are the same as disclosed for Alternative 5 in the FEIS, except that additional considerations were incorporated into the Decision to address specific roads and trails where current uses are degrading fisheries habitat. These include:

- Restrictions on motorized use in the Smith River corridor and along Tenderfoot Creek
- Closure of trails in Hoover Creek to horse and motorized travel until improvements can be made to mitigate sediment delivery and channel damage at trail crossings
- Closure of the Daisy Dean Trail until improvements can be made to mitigate sediment delivery and channel damage at trail crossings

Effects on westslope cutthroat trout.

Westslope cutthroat trout (WCT), a designated Sensitive Species, are found across the analysis area, mostly in headwater stream reaches where they are usually affected more by the trail system than by roads. The incubation period for WCT embryos buried in spawning gravel beds can extend into August in some of these mountain streams, making them especially vulnerable to crushing at road or trail crossing sites. Many WCT populations are so small and isolated that they will remain vulnerable to extirpation from natural and human disturbances regardless of the travel plan decision. WCT populations that are sharing their limited habitat with competing and hybridizing non-native trout face an even greater risk of extinction.

A smaller scale watershed analysis combined with survey information was used to evaluate road and trail impacts to WCT habitats, but number of stream crossings and riparian road and trail mileages were still the indices used to compare alternatives. As shown in ROD Table 24, stream crossings in WCT watersheds would decrease under all action alternatives, but the greatest reduction would be achieved under Alternatives 4, 5 and the Summer Decision.

ROD Table 23. Stream Crossings by Alternative for Watersheds with Highest Potential Impact on Fisheries Habitat from Forest Service Roads and Trails

6th Code Watershed	Major Stream or Streams in Watershed[1]	Summer Alt 1		Summer Alt 3		Summer Alt 4		Summer Alt 5		Summer DECISION	
		Road	Trail	Road	Trail	Road	Trail	Road	Trail	Road	Trail
100301030101	NF Smith R.	23	0	18	0	15	3	15	3	18	0
100301030104	Fourmile Cr.	19	25	14	25	14	25	14	25	14	25
100301030401	Newlan Cr.	52	0	30	0	30	0	30	0	30	0
100301030701	Sheep Cr. (upper)	75	3	42	7	42	7	39	6	39	4
100301030703	Moose Cr.	29	7	25	7	25	7	25	7	24	8
100301030901	Tenderfoot Cr. (upper)	21	56	14	58	14	56	14	46	14	46
100301030902	Tenderfoot Cr. (middle)	2	30	1	32	1	30	1	23	1	23
100301030903	Tenderfoot Cr. (lower & SF)[2]	5	15	2	15	2	15	2	15	2	15
100301050101	Belt Cr. (headwater/Jefferson)	42	6	27	6	27	6	28	6	28	6
100301050102	Belt Cr. (upper)	27	29	15	37	15	14	15	15	15	15
100301050103	Belt Cr. (middle)	31	99	29	99	29	95	29	95	29	95
100301050104	Dry Fork Belt Cr.	65	85	47	59	47	62	50	58	50	56
100301050203	Logging Cr.	63	16	47	28	48	27	48	21	48	22
100401030101	Cleveland and Harrison Cr.	5	45	3	14	3	13	3	2	0	2
100401030102	SF Judith R./Deadhorse Cr.	36	49	24	48	24	48	24	48	24	48
100401030104	South Fork Judith R. (lower)	87	69	31	108	69	82	30	33	17	34
100401030105	Yogo Cr.	47	21	42	22	38	21	34	18	34	18
100401030106	Middle Fork Judith R.[3]	29	10	11	15	11	10	15	9	15	7
100402010204	Spring Cr.	24	16	20	16	20	16	20	16	20	16
100402010303	Haymaker Cr.	63	40	62	40	62	40	22	40	14	45

[1] Includes perennial and intermittent streams

[2] Does not include 30 road and trail crossings on intermingled ownership lands

[3] Corrected with field data

Note: The number of road and trail stream crossings shown above may not be exact due to GIS data limitations and accuracy. For example, when trail locations closely parallel streams, GIS intersection points may not represent actual stream crossings. Also, as stream channels move over time, or trail segments are relocated, some stream crossings may not be depicted accurately in the GIS data layers. These values should be considered approximate and used comparatively.

ROD Table 24.
Total Stream Crossings (Motorized and Non-Motorized) in WCT Watersheds Managed by the Forest Service

Road / Trail Crossings by Alternative[1]													
Watershed HUC	Principal Stream	Stream Miles[2] Managed by FS in HUC	% of Stream Miles Managed by FS in HUC	Summer Alt 1 Existing		Summer Alt 3		Summer Alt 4		Summer Alt 5		Summer Decision	
				Road	Trail	Road	Trail	Road	Trail	Road	Trail	Road	Trail
10030103090105	Iron Mines	5.5	100	1	0	1	0	1	0	1	0	1	0
10030103090301	S Fk Tenderfoot	5.8	42	2	0	2	0	2	0	2	0	2	0
10030103100601	S Fk Deep	19.4	100	0	27	0	27	0	26	0	26	0	26
10030103100602	N Fk Deep	14.8	100	0	8	0	9	0	8	0	8	0	8
10030105010201	O'Brien	13.1	90	3	21	2	21	2	0	2	0	2	0
10030105010202	Carpenter	14.4	57	8	2	7	2	7	0	7	1	7	1
10030105010203	Harley/Graveyard	15.3	99	11	0	4	7	4	7	4	7	4	7
10030105010302	Crawford	3.2	57	0	14	0	14	0	14	0	14	0	14
10030105010304	Hoover	35.0	99	1	56	1	56	1	52	1	52	1	52
10030105010401	Oti Park	31.7	100	1	19	0	19	0	19	1	19	1	19
10030105010407	Goldrun	5.1	84	1	0	1	0	1	0	1	0	1	0
10030105010408	Spruce	3.7	100	2	0	1	1	1	0	0	2	0	2
10030105010412	Bender	4.8	100	1	10	1	10	1	10	1	10	1	10
10030105010416	Sawmill	10.2	98	1	15	1	15	1	15	1	15	1	15
10040103010102	Weatherwax	14.2	100	1	0	0	0	0	0	0	0	0	0
10040103010103	King	5.1	94	0	29	0	0	0	0	0	0	0	0
10040103010104	Harrison	36.4	94	3	3	3	0	3	0	3	0	0	0
10040103100101	Upper Dry Wolf	36.7	100	5	9	5	9	5	9	5	9	5	9
10040103100301	N Fk Running Wolf	14.9	97	21	1	21	0	21	0	21	0	21	0
100301050101	Belt headwtr/Jefferson	69.6	100	42	6	27	6	27	6	28	6	28	6
100301050202	Pilgrim	52.4	96	0	17	0	17	0	17	0	17	0	17
100401030102	S Fk Judith/Deadhorse	82.7	97	36	49	24	48	24	48	24	48	24	48
Totals		**494.0**		**140**	**286**	**101**	**261**	**101**	**231**	**102**	**234**	**99**	**234**

[1] Number of crossings may not be exact due to GIS accuracy (i.e., when trail locations closely parallel streams, GIS intersection points may not represent actual stream crossings). These values should be considered approximate and used comparatively.

[2] Includes perennial and intermittent streams.

The Decision will eventually result in approximately 40 fewer road crossings (about 30% reduction) and approximately 50 fewer trail crossings (about 20% reduction) on perennial and intermittent streams in WCT watersheds. These decreases are expected to particularly benefit WCT habitat in O'Brien Creek, King Creek, Harrison Creek, and the upper South Fork Judith River/Deadhorse Creek watershed.

All of the action alternatives would result in a decrease in total riparian road mileage of about 25% in WCT watersheds. Alternatives 4, 5 and the Summer Decision would also achieve a modest reduction of about 13% in total riparian trail mileage in WCT watersheds. Other features of the Summer Decision's effects on specific WCT streams will be the same as disclosed for Alternative 5 in the FEIS. The most notable effects include:

- Elimination of essentially all summer trail impacts to O'Brien Creek, which supports one of the best remaining WCT populations in the Belt Creek drainage
- Avoidance of potential adverse effects on the upper Carpenter Creek WCT population through closure of non-system trails
- Cessation of horse and motorbike impacts in Hoover Creek until trail improvements are made, as described previously
- Improved management of motorized use and reduced ATV impact in the Oti Park and Villars Creek area
- Closure of the King Creek Trail and eventual recovery of WCT rearing habitat
- Protection of the South Fork Judith River WCT restoration area by minimizing riparian trail impacts.

The Summer Decision, however, will not alleviate the adverse effects on WCT of a primitive county road in North Fork Running Wolf Creek several miles inside the Forest boundary. A small isolated WCT population resides in the headwaters of this stream and endures the effects of multiple fords which deliver substantial volumes of sediment-laden runoff during precipitation events. The Forest Service will seek opportunities to mitigate this problem through a cooperative agreement with the county.

IV. PUBLIC INVOLVEMENT

In 2000, the Lewis and Clark National Forest asked the public about the need to update and revise travel management across the entire Forest. A total of 211 people attended 10 open house meetings, and 90 letters were received from the public. In 2005, an Interdisciplinary Team of Forest Service employees began developing a proposed action for travel management in the three mountain ranges. This proposed action was released to the public for comment beginning September 20, 2005. The 30-day comment period was extended to November 25, 2005. Nine open house meetings were attended by over 651 people during the scoping period, and 15 meetings were conducted with local organizations to explain and discuss the proposed action. About 2,255 comments were received from the public as a result of this process.

A Draft Environmental Impact Statement was released for public comment beginning July 7, 2006. Nine open house meetings were attended by 483 people. About 1,783 comments were

received as a result of this process. A content analysis of public comments is contained in the project file.

The mailing list of people contacted via surface mail and e-mail has grown from 611 in 2000, to 1,010 in 2005, to 2,040 in 2007.

V. ALTERNATIVES CONSIDERED IN DETAIL

The public expressed a desire to see alternatives that reflected their points of view. As a result, two alternatives for management of wheeled vehicles were specifically developed by groups that use the Forest. Another alternative for management of wheeled vehicles was developed by the Interdisciplinary Team (IDT).

One action alternative for winter management was developed by a working group of special interests. The no-action winter alternative was preferred by a local contingent of snowmobilers, and the IDT developed an alternative for management of over-snow travel.

Overall, the Interdisciplinary Team assessed four alternatives for management of summer wheeled vehicle travel, and three alternatives for management of winter over-snow travel.

No Action Alternative

SUMMER - ALTERNATIVE 1

The No Action alternative provides a baseline for estimating the effects of other alternatives and therefore must be considered in detail (FSH 1909.15, part 14.1; 40 CFR 1502.14(d)). In cases such as this, where ongoing programs or management described within an existing plan continue as new plans are being developed, the No Action alternative means no change from current management direction (FSH 1909.15, part 14.1; CEQ's 40 Most Asked Questions, section 65.12, question 3). The 1988 Travel Plan and the 2001 Three-State OHV Decision define travel management that is currently enforced on the ground. This is the existing condition, and it would be carried forward if there were no decision made to change travel management. Therefore it is appropriately considered the No Action alternative. Analysis of current travel management also fulfills a 1989 directive by the Regional Forester to complete additional analysis of the 1988 Travel Plan.

Under this alternative the season and type of use currently allowed on existing roads, trails, and areas in the Little Belt, Castle, and north half Crazy Mountains would not change. Opportunities for motorized wheeled vehicle travel are widely dispersed throughout the three mountain ranges and vary in type and season.

WINTER - ALTERNATIVE 1.

The 1988 Travel Plan defines over-snow travel management that is currently enforced on the ground. This is the existing condition that most people are familiar with, and establishes a basis to compare the effects of other alternatives.

Under this alternative the season and type of use currently allowed during the winter months in the Little Belt, Castle, and north half Crazy Mountains would not change. Opportunities

for motorized over-snow travel are widely dispersed throughout the three mountain ranges and vary in type and season.

Action Alternatives

We deliberately skipped Summer – Alternative 2, because it will not be analyzed in detail. Summer – Alt. 2 was the "proposed action" released in September 2005 for public comment. Refer to the section on "alternatives considered but eliminated from detailed study" in the FEIS for more discussion as to why Alternative 2 was dropped from detailed analysis.

SUMMER - ALTERNATIVE 3

This alternative was developed by a coalition of organizations representing motorized travel including aircraft.

This alternative features a network of single-track loop trails for motorcycles, and loop trails for ATVs in all three mountain ranges. Non-motorized foot and horse travel is accommodated in the upper Tenderfoot Creek, Hoover Creek, Sawmill-Wagner Gulch, Lost Fork Judith River, Steiner Creek, and Yogo Creek areas of the Little Belt Mountains. Four airstrips are also proposed in the Little Belt Mountains.

SUMMER - ALTERNATIVE 4.

This alternative promotes non-motorized recreation in areas identified by the Montana Wilderness Association. It incorporates features of Summer – Alt. 2 Proposed Action for areas that would be open to motorized recreational travel during the spring, summer, and fall.

This alternative features large blocks of "quiet" non-motorized areas in the Middle Fork Judith Wilderness Study Area, Tenderfoot-Deep Creek, Eagle Creek, Pilgrim Creek, Hoover-Big Baldy, Daisy Dean-Nevada Creek, Haymaker Creek, and East Fork Spring Creek areas in the Little Belt Mountains. It also features large non-motorized blocks in the west half of the Castle Mountains, and north half of the Crazy Mountains. Single-track loop trails for motorcycles, and loop trails for ATVs are accommodated in the Calf Creek, Jumping Creek, Jefferson Creek, Smoky Mountain, Dry Wolf Creek, South Fork Judith River, Spring Creek, and eastern portion of the Little Belt Mountains. No airstrips are proposed.

SUMMER - ALTERNATIVE 5.

This alternative attempts to blend public preferences with resource concerns for all three mountain ranges. It includes actions not directly considered in Alternatives 1, 3, or 4 to help display and compare the effects of options to address some specific issues.

This alternative features a network of single-track loop trails for motorcycles, and loop trails for ATVs in the Little Belt Mountains. The Castle Mountains accommodates one ATV loop trail in the west half, and a network of roads in the east half. One loop ATV trail in conjunction with the Gallatin National Forest is provided in the Crazy Mountains. Non-

motorized foot and horse travel is promoted in large blocks of quiet areas along the Smith River, upper Tenderfoot Creek, Pilgrim Creek, Lost Fork Judith, and South Fork Judith river in the Little Belt Mountains. In the Castle Mountains there would be large quiet areas in the Beartrap Peak-Woodchuck Mountain area, and the Castle Mountain area; and the north half of the Crazy Mountains is predominantly a large area for non-motorized travel. Two airstrips are proposed in the Little Belt Mountains.

WINTER - ALTERNATIVE 2.

This alternative depicts an agreement between the Montana Snowmobile Association, Montana Wilderness Association, and other organizations for management of winter recreation in the Little Belt Mountains. Forest Service managers developed the "proposed winter recreation action" for the Castle and north half Crazy Mountains. This alternative is the "proposed action" for winter over-snow travel management that was released in September 2005 for public comment.

This alternative features maintenance of the existing groomed and designated snowmobile trail system in the Little Belt Mountains, and provides for open snowmobiling in about half of the Little Belt Mountains. Similarly, about two-thirds of the Castle Mountains, and half of the Crazy Mountains would remain open to snowmobiling. Developed cross-country ski areas would be promoted in the Mizpah, Deadman, O'brien Park, and Jefferson Creek areas. Big-game winter ranges currently closed to snowmobiling would continue to be restricted. Large blocks of non-motorized quiet areas would be provided in the Middle Fork Judith WSA, Tenderfoot-Deep Creek-Pilgrim Creek-Dry Wolf area, and northeast end of the Little Belt Mountains. The east one-third of the Castle Mountains, and the east half of the Crazy Mountains would also provide quiet areas.

WINTER - ALTERNATIVE 3.

This alternative was developed by Forest Service managers and specialists for all three mountain ranges to protect big-game winter ranges, wolverine denning habitat, and cross-country ski areas. It includes actions not directly considered in Winter Alternatives 1 or 2 to help display and compare the effects of options to address some specific issues.

This alternative features maintenance of the existing groomed and designated snowmobile trail system in the Little Belt Mountains, and provides for open snowmobiling in about two-thirds of the Little Belt Mountains. Similarly, about two-thirds of the Castle Mountains, and one-third of the Crazy Mountains would remain open to snowmobiling. Developed cross-country ski areas would be promoted in the Mizpah, Deadman, O'brien Park, and Jefferson Creek areas. Large blocks of non-motorized quiet areas would be provided in the Smith River-Deep Creek area, Thunder Mountain, Barker Mountain, Peterson Mountain, Big Baldy Mountain, Kelly Mountain, Bluff Mountain, and northeast end of the Little Belt Mountains. The Four Mile Creek area and east one-third of the Castle Mountains; and the northwest corner and east half of the Crazy Mountains would also be quiet areas.

VI. FINDINGS REQUIRED BY LAWS, REGULATIONS, AND POLICIES

A. Forest Plan Consistency

The Lewis and Clark National Forest Plan provides integrated guidance for all natural resource management activities as required by the National Forest Management Act of 1976. The Forest Plan established goals and management direction for the entire Forest and identified standards for resource protection. The actions selected in this ROD comply with Forest Plan direction, and the:

A. National Forest Management Act
B. National Environmental Policy Act
C. Endangered Species Act
D. National Historic Preservation Act
E. Additional Laws and Regulations

VII. ENVIRONMENTALLY PREFERRED ALTERNATIVE

Council on Environmental Quality regulations direct the decision-maker to identify the environmentally preferable alternative. The environmentally preferred alternative is not necessarily the alternative that will be implemented and it does not have to meet the underlying need of the project. It does, however, have to cause the least damage to the biological, and physical environment and best protect, preserve, and enhance historical cultural, and natural resources (Section 101 NEPA: 40 CFR 1505.2(b)).

The Forest Service did not identify an environmentally preferred alternative in either the "Draft" or "Final" Environmental Impact Statement. On environmental issues like water quality and air quality the analysis does not indicate great differences between the alternatives. Based on the assumptions used in the analysis Summer Alternative 4 would have slightly less negative impact on water and air quality. The analysis for effects on wildlife is more insightful. In reviewing ROD Tables 17 – 24, Alternative 4 has the least negative effects on wildlife habitat, and is the environmentally preferred alternative. My decision has almost identical impacts to the environmentally preferred alternative.

VIII. APPEAL PROVISIONS AND IMPLEMENTATION

This decision is subject to appeal pursuant to 36 CFR 215.11. A written appeal must be submitted within 45 days following the publication date of the legal notice of this decision in the *Great Falls Tribune*, the newspaper of record. It is the responsibility of the appellant to ensure their appeal is received in a timely manner. The publication date of the legal notice of the decision in the newspaper of record is the *exclusive* means for calculating the time to file an appeal. Appellants should not rely on date or timeframe information provided by any other source.

Paper appeals must be submitted to:

USDA Forest Service, Northern Region
ATTN: Appeal Deciding Officer
P.O. Box 7669
Missoula, MT 59807

Or

USDA Forest Service, Northern Region
ATTN: Appeal Deciding Officer
200 East Broadway
Missoula, MT 59802

Office hours: 7:30 a.m. to 4:00 p.m.

Electronic appeals must be submitted to: appeals-northern-regional-office@fs.fed.us

In electronic appeals, the subject line should contain the name of the project being appealed. An automated response will confirm your electronic appeal has been received. Electronic appeals must be submitted in MS Word, Word Perfect, or Rich Text Format (RTF).

It is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why my decision should be reversed. The appeal must be filed with the Appeal Deciding Officer in writing. At a minimum, the appeal must meet the content requirements of 36 CFR 215.14, and include the following information:

- The appellant's name and address, with a telephone number, if available;
- A signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal);
- When multiple names are listed on an appeal, identification of the lead appellant and verification of the identity of the lead appellant upon request;
- The name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision;
- The regulation under which the appeal is being filed, when there is an option to appeal under either 36 CFR 215 or 36 CFR 251, subpart C;
- Any specific change(s) in the decision that the appellant seeks and rationale for those changes;
- Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement;
- Why the appellant believes the Responsible Official's decision failed to consider the substantive comments; and
- How the appellant believes the decision specifically violates law, regulation, or policy

We will begin implementation of this travel plan at the end of the 45 day appeal period. Our first priority will be to produce a motor vehicle use map to communicate what roads and trails have been designated, and the type of use and season of use. We will begin installing signs to designate routes, starting with the major roads and trails first. In cases where new roads or

trails are identified in the decision we will need to complete some site specific analysis for impacts on sensitive plants and cultural resources. Some of the less popular roads and trails may not be completely marked on the ground for several years. It will be the responsibility of the recreating public to make sure they are following the travel plan as described on the motor vehicle use map.

The decisions identified in this ROD shall be implemented as soon as practicable following opportunity for review and appeal.

IX. PLANNING RECORDS/CONTACT PERSON

The planning records contain detailed information and data used in preparation of the Rocky Mountain Ranger District Travel Management Plan EIS and in selecting Alternative 5 with modifications for implementation.

Documents are available at:

Lewis and Clark National Forest
1101 15th Street North, Box 869
Great Falls, MT 59403
(406) 791-7700

For additional information concerning this decision please contact Dick Schwecke, ID Team Leader, Lewis and Clark National Forest, Great Falls, Montana, (406) 791-7700.

_____ _____

LESLEY W. THOMPSON **Date**
Forest Supervisor

Mitigation Measures

Mitigation measures as described in the FEIS for this project will be implemented to minimize, reduce, rectify, avoid, eliminate, and/or compensate the potential impacts to resources identified in Chapter III (40 CFR 1508.20).

Appendices

Appendix A Detailed Summary of Seasonal Motorized Wheeled Vehicle Restrictions
Appendix B Sensitive Plants Biological Evaluation
Appendix C Biological Evaluation/Assessment and Management Indicator Species Report

ROD - APPENDIX A

Detailed Summary of Seasonal Motorized Wheeled Vehicle Travel Restrictions

Time Period Restricted To Travel by Motorized Wheeled Vehicles (& Time Open to Travel)	Mode of Travel	Codes	Castle Mtns. Mileage	Crazy Mtns. Mileage	Little Belt Mtns. Mileage	Total Mileage
Motorized Wheeled Vehicle Travel Not Restricted:						
No Travel Restrictions (Open Yearlong)	Passenger Vehicle	20, 20.1	31	26	527	**584**
	4x4 Vehicle	20.9	44	0	84	**128**
	ATV	7	20	5	96	**121**
	Motorcycle	8	0	0	37	**37**
Motorized Wheeled Vehicle Travel Restricted Seasonally:						
Restricted 5/1 to 6/15 (Open 6/16 to 4/30)	Passenger Vehicle	28	0	0	1	**1**
	ATV	28.1	0	0	2	**2**
Restricted 9/1 to 12/1 (Open 12/1 to 8/31)	Passenger Vehicle	21, 21.0	9	17	46	**72**
	ATV	40	0	0	6	**6**
	Motorcycle	39	0	0	30	**30**
Restricted 9/1 to 6/30 (Open 7/1 to 8/31)	Passenger Vehicle	22	0	0	30	**30**
	4x4 Vehicle	21.9	9	0	13	**22**
	ATV	22.1	0	0	11	**11**
	Motorcycle	22.4	7	0	9	**16**
Restricted 9/2 to 7/14 (Open 7/15 to 9/1)	Motorcycle	45	0	0	7	**7**
Restricted 9/15 to 6/15 (Open 6/16 to 8/31)	ATV	21.2	0	9	0	**9**
Restricted 10/15 to 12/1 (Open 12/2 to 10/14)	Passenger Vehicle	23, 23.0	0	2	6	**8**
	4x4 Vehicle	23.9	2	0	8	**10**
	ATV	5, 5.1	4	0	15	**19**
	Motorcycle	4	12	0	55	**67**
Restricted 10/15 to 5/15 (Open 5/16 to 10/14)	Passenger Vehicle	24	0	0	2	**2**
	ATV	24.1	0	0	6	**6**
Restricted 10/15 to 6/30 (Open 7/1 to 10/14)	Passenger Vehicle	29, 29.0	0	0	32	**32**
	ATV	6	0	0	34	**34**
	Motorcycle	15, 15.1	0	0	18	**18**
Restricted 10/15 to 8/15 (Open 8/16 to 10/14)	Motorcycle	44	0	0	19	**19**
Restricted 12/1 to 5/15 (Open 5/16 to 11/30)	4x4 Vehicle	25.9	0	0	17	**17**
	ATV	25.1	0	0	5	**5**
Restricted 12/1 to 6/1 (Open 6/2 to 11/30)	Passenger Vehicle	26, 26.0	0	0	12	**12**
	4x4 Vehicle	26.9	0	0	1	**1**
Restricted 12/1 to 6/30 (Open 7/1 to 11/30)	ATV	11	0	0	9	**9**
	Motorcycle	32.1	0	0	31	**31**
Motorized Wheeled Vehicle Travel Restricted Yearlong:						
Open yearlong to non-motorized travel (Closed to motorized travel)	Horse / Hike / Bicycle	1, 2, 3	41	65	453	**559**
	Hiking / Bicycle	1.1	0	0	14	**14**
GRAND TOTAL MILEAGE			**179**	**124**	**1,636**	**1,939**

*Mileages shown above are for routes under Forest Service jurisdiction only and may not correspond to mileages shown in other tables in the FEIS and ROD. Other tables may include mileages of routes that are under State, county, or private jurisdiction.

APPENDIX B

United States Department of Agriculture | **Forest Service** | **Lewis and Clark National Forest** | **1101 15th Street North**
P.O. Box 869
Great Falls, MT 59403-0869
406 791-7700
FAX 406 761-1972

File Code: 1950/2670 **Date:** July 25, 2007
Route To: Little Belt, Castle, and North Half Crazy Mountains Travel Management Plan, Project Record

Subject: Sensitive Plant Biological Evaluation

To: Lesley W. Thompson, Forest Supervisor

I. Introduction

This Biological Evaluation documents the potential effects of the proposed Little Belt, Castle, and North Half Crazy Mountains Travel Management Plan, specifically the Summer Alternatives and Decision, on Regional Forester-determined sensitive plants (Kimbell 2004a) that occur or are suspected to occur within the Jefferson Division of the Lewis and Clark National Forest. There are no concerns about potential effects on sensitive plants under the Winter Alternative. Forest Service sensitive species are defined as "Those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by: a) significant current or predicted downward trends in population numbers or density or b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution" (USDA Forest Service 1991). Regional Foresters are delegated the authority to designate sensitive plant species based on the definition above (USDA Forest Service 2005). The current USFS Northern Region (R1) sensitive plant species list was developed October 28, 2004 (Kimbell 2004a). On November 24, 2004, long-styled thistle (*Cirsium longistylum*) was removed from Regional Forester's list after completion of a status assessment (Kimbell 2004b). This document is prepared to comply with the legal requirements set forth under the policies and standards in Forest Service Manual 2670.3 and 2672.4 through 2672.42.

One of the Lewis and Clark National Forest's long-range goals for sensitive species is to promote high quality…habitat to insure a desired mixture of well-distributed species and numbers for public benefit with special emphasis given to sensitive plant, animal, and fish species management (USDA Forest Service1986 (Sec. 2-2 (3)), as amended 1993). Special consideration may be given in land management to maintain genetic diversity (USDA Forest Service 1986 (Sec. C-2(13)), as amended 1993). Based on the Forest Plan goals, objectives, and management standards, viable populations of sensitive plant species would be maintained across the Forest, and Forest populations would contribute to a viable Regional population (USDA Forest Service 1993 - Amendment 12).

No new, systematic ground surveys were completed for the existing travel management situation or the Summer Alternatives. Sensitive plant information was derived from past surveys, documented in the Lewis and Clark National Forest's plant atlas and known sensitive plant element occurrences provided by the Montana Natural Heritage Program (MNHP 2006). In addition, the Lewis and Clark National Forest's sensitive plant species geographic information system (GIS) probability model and habitat potential as determined by habitat and site characteristics were also used to analyze potential effects. The measure used in the effects

analysis is the intersection of existing and proposed travel routes with known sensitive plant populations, as described by element occurrences (EO). Element occurrences are an area depicting what is known from direct observation. In many instances, adjacent, spatially separated clusters of plants are considered subpopulations and are grouped as one occurrence (MNHP 2006).

II. Project Description

The Summer Decision is documented in the electronic GIS database, ROD II Decision, and ROD Map 5 – Summer Travel. Summer Alternatives 1, 3, 4, and 5 are also documented in the electronic GIS database, FEIS Chapter II – Alternatives, and FEIS Chapter V – Appendices - Maps. The above data sources provide road and trail travel season and status, as well as details concerning route relocations and construction.

III. Existing Condition

The Lewis and Clark National Forest Land and Resource Management Plan provides Forest-wide management direction in regards to sensitive plants stating "Conduct biological evaluations of each program or activity which is Forest Service funded, authorized, or carried out on occupied Threatened, Endangered, or Sensitive species habitat, to determine whether the activity may effect Threatened and Endangered or Sensitive species" (USDA Forest Service1986). The three plants listed on the Endangered Species List as "threatened" and occurring in Montana are water howellia (*Howellia aquatilis*), Spalding's catchfly (*Silene spaldingii*), and Ute ladies'-tresses (*Spiranthes diluvialis*). Species occurrences and suitable habitat are only known on Forests west of the Continental Divide for water howellia and Spalding's catchfly and in the Missouri, Jefferson, Beaverhead, Ruby, and Madison River drainages for Ute ladies'-tresses. No further analysis will be conducted for the threatened species.

The current Northern Region sensitive plant species list (Kimbell 2004a) was reviewed as it pertains to the project area. There are currently eleven sensitive plant species that either occur or are suspected to occur on the Jefferson Division (Belt Creek, Judith, Musselshell, and White Sulphur Springs Ranger Districts) of the Lewis and Clark National Forest. The presence or absence of plant populations or habitat is summarized in the following table and discussed below. Five species are known to occupy habitat and have documented occurrences in the Jefferson Division. These sensitive plant species are short-styled columbine (*Aquilegia brevistyla*), Northern wild-rye (*Elymus innovatus*), Northern rattlesnake-plantain (*Goodyera repens*), Missoula phlox (*Phlox kelseyi* var. *missoulensis*), and Austin's knotweed (*Polygonum douglasii ssp. Austinae*). Six species, English sundew (*Drosera anglica*), linear-leaved sundew (*Drosera linearis*), Hall's rush (*Juncus hallii*), Barratt's willow (*Salix barrattiana*), water bulrush (*Scirpus subterminalis*), and alpine meadowrue (*Thalictrum alpinum*), may also be present on the Lewis and Clark National Forest. Although these species have not been found on the Forest, with the exception noted below, it is suspected that their habitat may occur. One occurrence of Hall's rush was reported to the Montana Natural Heritage Program (MNHP 2006) in 2004. Twelve species are not known to occur on the Jefferson Division of the Lewis and Clark National Forest. These plant species are round-leaved orchis (*Amerorchis rotundifolia*), Lackschewitz' milkvetch (*Astragalus lackschewitzii*), upward-lobed moonwort (*Botrychium ascendens*), peculiar moonwort (*Botrychium paradoxum*), small yellow lady's-slipper (*Cypripedium parviflorum*), sparrow's-egg lady's-slipper (*Cypripedium passerinum*), giant helleborine (*Epipactis gigantea*), Lackschewitz' fleabane (*Erigeron lackschewitzii*), Macoun's gentian (*Gentianopsis macounii*), stalked-pod crazyweed (*Oxytropis podocarpa*), blunt-leaved

pondweed (*Potamogeton obtusifolius*), and five-leaved cinquefoil (*Potentilla quinquefolia*). Habitat information for these species is listed in Table 1.

Table 1. Northern Region Sensitive Plant Species on the Lewis and Clark National Forest.

SPECIES NAME	HABITAT PREFERENCE AND OCCURRENCE IN PROJECT AREA
short-styled columbine	Open woods and stream banks at mid-elevations in the montane zone. *Known to occur in the project area.*
Northern wild-rye	Sandy meadows, streambank and rocky hillsides to open lodgepole pine or spruce forests. Elevations range from 4,600 to 5,200 feet on the Forest. *Known to occur in the project area.*
Northern rattlesnake-plantain	North-facing, mossy forested slopes in the montane zone. Usually in old-growth/late successional forests. *Known to occur in the project area.*
Missoula phlox	Open, exposed, limetsone-derived slopes in foothills and montane zones. *Known to occur in the project area.*
Austin's knotweed	Barren to sparsely vegetated, dry, gravelly, often shale-derived soils of eroding slopes and banks in the montane zone. Elevations range from 4,900 to 7,000 feet on the Forest. *Known to occur in the project area.*
English sundew	Sphagnum moss in wet, organic soils of fens in the montane zone. *Habitat may exist in the project area, but no known populations occur.*
linear-leaved sundew	Sphagnum moss bogs, organic soils of nutrient-poor fens at mid-elevations in the montane zone. *Habitat may exist in the project area, but no known populations occur.*
Hall's rush	Montane to sub-alpine, wet sloughs to moist or dry meadows and open, grassy slopes. Often associated with fescue grasslands or more moist meadows, sometimes partially shaded. *Known to occur in the project area.*
Barratt's willow	Cold, moist soils near or above timberline. *Habitat may exist in the project area, but no known populations occur.*
water bulrush	Shallow fresh water and boggy margins of ponds, lakes, and sloughs in valley, foothill, and montane zones. *Habitat may exist in the project area, but no known populations occur.*
alpine meadowrue	Hummocks, often beneath low shrubs in moist, alkaline meadow in the montane zone. *Habitat may exist in the project area, but no known populations occur.*
round-leaved orchis	Moist to wet coniferous forests in full or partial shade, seepy areas, and along stream habitat on limestone substrate. Associated vegetation includes spruce and horsetail species. *Habitat may exist in the project area, but no known populations occur.*
Lackschewitz' milkvetch	Open, gravelly calcareous soils and talus on ridge-tops and slopes in alpine and sub-alpine zones. *Habitat may exist in the project area, but no known populations occur.*
upward-lobed moonwort	Alpine meadows, grassy openings in open sub-alpine forests. *Habitat may exist in the project area, but no known populations occur.*
peculiar moonwort	Open meadows or dense stand of tall forbs in the foothill to alpine zones, often in areas that have experienced some disturbance. *Habitat may exist in the project area, but no known populations occur.*
small yellow lady's-slipper	Bogs, damp mossy woods, seepage areas, and moist forest meadow ecotones. *Habitat may exist in the project area, but no known populations occur.*
sparrow's-egg lady's-slipper	Mossy, moist, seepy places in coniferous forests, often on calcareous substrates. Frequently co-occurs with round-leaved orchis, spruce and horsetail species. *Habitat may exist in the project area, but no known populations occur.*
giant helleborine	Streambanks, lake margins, seep and springs, often near thermal waters. *Habitat may exist in the project area, but no known populations occur.*

SPECIES NAME	HABITAT PREFERENCE AND OCCURRENCE IN PROJECT AREA
Lachschewitz' fleabane	Open, gravelly calcareous soils and talus ridge-tops and tundra in the alpine zone. *Habitat may exist in the project area, but no known populations occur.*
Macoun's gentian	Wet, organic soils of calcareous fens in the valley and foothill zones. *Habitat may exist in the project area, but no known populations occur.*
stalked-pod crazyweed	Alpine ridge and slope habitats, often on limestone substrates. *Habitat may exist in the project area, but no known populations occur.*
blunt-leaved pondweed	Shallow water of lakes, ponds, and sloughs in the valley, foothill, and montane zones. Usually at lower elevations. *Habitat may exist in the project area, but no known populations occur.*
five-leaved cinquefoil	Dry, gravelly soils of exposed ridges and slopes in the montane to alpine zones. *Habitat may exist in the project area, but no known populations occur.*

Table 2 indicates existing roads and trails that intersect known sensitive plant populations in the Little Belt, Castle, and north half Crazy Mountains. The information was derived from element occurrence data provided by the Montana Natural Heritage Program (MNHP 2006). The number of populations intersected by each route is indicated in the table. In some instances, multiple routes intersect a single population.

Table 2. Roads & Trails That Currently Intersect Sensitive Plant Populations.

Road or Trail	Species Present (# Element Occurrences)	Remarks
Rd 120	Northern rattlesnake-plantain (1)	Dry Fork Belt Creek
Rd 189	Northern rattlesnake-plantain (2)	Willow Park-Haymaker
Rd 251	Missoula phlox (1)	Dry Wolf
Rd 264-A	Northern rattlesnake-plantain (1), short-styled columbine (1)	Running Wolf Spur
Rd 265	Northern rattlesnake-plantain (2), short-styled columbine (7)	Sage Creek
Rd 487	Northern rattlesnake-plantain (4), short-styled columbine (2), Missoula phlox (6)	Memorial Way
Rd 825	Northern rattlesnake-plantain (1), short-styled columbine (1)	Middle Fork Judith River
Rd 839	Northern wild-rye (1), Hall's rush (1)	Divide Road
Rd 2009	Northern rattlesnake-plantain (1)	Bear-Tollgate Mountain
Rd 2084	Northern rattlesnake-plantain (1)	Skunk Gulch
Rd 3309	Northern rattlesnake-plantain (1), short-styled columbine (2)	Bear Gulch
Rd 3309-A	short-styled columbine (1)	East Fork Bear Gulch
Rd 3348	Northern rattlesnake-plantain (1)	Iron Claims
Rd 6366	Northern rattlesnake-plantain (2)	Campsite-Villars
Rd 6390	Northern rattlesnake-plantain (2), short-styled columbine (1)	Hay Canyon
Rd 6392	Northern rattlesnake-plantain (3), short-styled columbine (1)	Dry Pole Gulch
Rd 6393	Austin's knotweed (2)	Fawn Creek
Rd 6395	Northern rattlesnake-plantain (1)	Burley Gulch
Rd 6396	Northern rattlesnake-plantain (4)	Lower Burley Peak
Rd 6397	Northern rattlesnake-plantain (1)	Bluff Creek
Rd 6417	Missoula phlox (1)	Harrison Creek
Rd 6436	Northern wild-rye (1)	4WD Powerline
Rd 6550	Northern rattlesnake-plantain (1)	Burley Peak
Rd 6558	Northern rattlesnake-plantain (1)	Dead Horse T.S. 2
Rd 6573	Northern rattlesnake-plantain (1)	Republican Gulch
Rd 8807	Northern rattlesnake-plantain (1)	West Fork Hopley
Rd 8808	Northern rattlesnake-plantain (1)	Middle Fork Connection
Rd 8809	Northern rattlesnake-plantain (5)	Haymaker Canyon

Road or Trail	Species Present (# Element Occurrences)	Remarks
Rd 8852	Northern rattlesnake-plantain (2)	Butcherknife Divide
Rd 8863	Northern rattlesnake-plantain (1), short-styled columbine (1)	Hay Coulee
Rd 8868	Northern rattlesnake-plantain (1), short-styled columbine (3)	Sawmill Gulch
Tr 401-A	Northern rattlesnake-plantain (1)	Dry Wolf Alternate
Tr 408	Northern rattlesnake-plantain (4)	Bear Park
Tr 409	Northern rattlesnake-plantain (2)	Lost Fork Judith River
Tr 417	Northern rattlesnake-plantain (1)	Butcherknife
Tr 424	Northern rattlesnake-plantain (1)	Arch Coulee
Tr 430	Northern rattlesnake-plantain (1), short-styled columbine (1)	Bear Gulch
Tr 433	Northern rattlesnake-plantain (2), short-styled columbine (1)	Burris-Ettien
Tr 437	Northern rattlesnake-plantain (1), short-styled columbine (3)	Middle Fork Judith River
Tr 439	Northern rattlesnake-plantain (2)	South Fork Judith River
Tr 458	Northern rattlesnake-plantain (3), short-styled columbine (1)	Dry Pole Canyon
Tr 602	Northern rattlesnake-plantain (3)	Haymaker Canyon
Tr 625	Northern rattlesnake-plantain (1)	Basin Creek
U-189087	Northern rattlesnake-plantain (1)	Undetermined
U-2079001	Northern rattlesnake-plantain (1)	Undetermined
U-3309A001	short-styled columbine (1)	Undetermined
U-3309A002	short-styled columbine (1)	Undetermined
U-415	Northern rattlesnake-plantain (1)	Undetermined
U-487002	Missoula phlox (1)	Undetermined
U-487008	Missoula phlox (1)	Undetermined
U-487202	Northern rattlesnake-plantain (1)	Undetermined
U-839266	Missoula phlox (1)	Undetermined
U-8852006	Northern rattlesnake-plantain (1)	Undetermined

Approximately 54 Northern rattlesnake-plantain, 24 short-styled columbine, eight Missoula phlox, one Northern wild-rye, one Hall's rush, and two Austin's knotweed populations are documented along existing routes. Open routes intersect these populations 69, 28, 11, 2, 1, and 2 times, respectively. There are many additional element occurrences that are close to travel routes, but do not intersect them.

IV. Effects

Summer Alternatives 3, 4, 5, and the Decision have the potential to positively and negatively impact known sensitive plant populations. The information provided in Table 2 applies to the Summer Alternatives and Decision with the exceptions noted in Table 3.

Table 3. Changes To The Existing Travel Management Plan That May Potentially Affect Sensitive Plant Populations.

Road/Trail	Action Proposed	Species Affected	Remarks
Rd 265	Eliminate portion of route with Alt 5 and Decision.	Northern rattlesnake-plantain (1)	
Rd 825	Eliminate portion of route with Alts 3, 4, 5, and Decision.	Northern rattlesnake-plantain (1), short-styled columbine (1 - Decision)	Road parallels Trail 437 through plant populations. Landowner passage.
Rd 6392	Eliminate route with Decision.	Northern rattlesnake-plantain (3), short-styled columbine (1)	
Rd 6395	Eliminate route with Alts	Northern rattlesnake-plantain (1)	

Road/Trail	Action Proposed	Species Affected	Remarks
	3, 4, 5, and Decision.		
Rd 6529	Construct road for motorized use with Alts 3, 4, 5, and Decision.	Northern rattlesnake-plantain (1)	New construction. The surrounding area has a high probability of providing short-styled columbine habitat.
Rd 8809	Eliminate portion of route with Alt 5 and Decision.	Northern rattlesnake-plantain (4)	Use existing trail adjacent to road.
Rd 8852	Open road to motorized use with Alts 3, 4, 5, and Decision.	Northern rattlesnake-plantain (2)	Road has decommissioned status with existing, but not implemented. Route along Conservation Strategy core population.
Rd 8863	Eliminate route with Alt 5 and Decision.	Northern rattlesnake-plantain (1), short-styled columbine (1)	
Tr 424	Eliminate route with Alt 5 and Decision.	Northern rattlesnake-plantain (1)	The surrounding area has a high probability of providing short-styled columbine habitat.
Tr 458	Eliminate route with Alts 3, 5, and Decision.	Northern rattlesnake-plantain (3), short-styled columbine (1)	Same EO as Rd 6392.
U-189087	Eliminate route with Alts 3, 4, 5, and Decision.	Northern rattlesnake-plantain (1)	
U-2079001	Eliminate route with Alts 4, 5, and Decision.	Northern rattlesnake-plantain (1)	
U-3309A001	Eliminate route with Alts 3, 4, 5, and Decision.	short-styled columbine (1)	Same EO as Rd 3309-A, therefore, it is still affected.
U-3309A002	Eliminate route with Alts 3, 4, 5, and Decision.	short-styled columbine (1)	Same EO as Rd 3309-A, therefore, it is still affected.
U-415 (Trail)	Eliminate route with Alt 5 and Decision.	Northern rattlesnake-plantain (1)	Same EO as Rd 264-A and Trail 408.
U-487002	Eliminate route with Alts 3, 4, 5, and Decision.	Missoula phlox (1)	
U-487008	Eliminate route with Alts 3, 4, 5, and Decision.	Missoula phlox (1)	Same EO as on Rd 251 and 487, therefore, it is still affected.
U-487202	Eliminate route with Alts 3, 4, 5, and Decision.	Northern rattlesnake-plantain (1)	
U-839266	Eliminate route with Alts 3, 4, 5, and Decision.	Missoula phlox (1)	
U-8852006	Eliminate route with Alts 3, 4, 5, and Decision.	Northern rattlesnake-plantain (1)	Same as existing condition.

Implementation of the Summer Alternatives and Decision would reduce the number of road and trail intersections with known sensitive plant populations and produce beneficial effects on sensitive plants. Although plants are not located on road or trail prisms, route elimination or decommissioning would reduce the potential damage to plants with travel off the road or trail. General cross-country foot and horse travel could still impact populations, but this would be minimal. Elimination of routes would also reduce the potential of invasive species seed transport to sensitive plant populations. However, decommissioning methods that disturb the ground could create seedbeds favorable for invasive establishment. Alternatives 3, 4, 5, and the

Decision propose to eliminate 11, 11, 17, and 18 routes (roads, trails, and undetermined) or portions of routes, respectively, that intersect known plant populations. Table 5 displays the type and number of plant populations that would benefit with route elimination under each alternative. In several instances other open routes still intersect these populations. Although the Record of Decision will determine the travel status of each route, specific decommissioning methods would be determined at a future time and would be designed to avoid ground disturbance and habitat alteration within existing sensitive plant populations.

Table 5. Sensitive Plant Populations Positively Affected Through Route Elimination

	Summer Alt. 1	Summer Alt. 3	Summer Alt. 4	Summer Alt. 5	Summer DECISION
Northern rattlesnake-plantain	N/A	8	6	17	20
Short-styled columbine	N/A	3	2	4	6
Missoula phlox	N/A	3	3	3	3

In addition to the beneficial effects, these alternatives have the potential to negatively impact sensitive plants through route construction, prism modification, or opening previously decommissioned routes. Three northern rattlesnake-plantain populations could be negatively impacted. Construction of road 6529 is proposed through a rattlesnake-plantain population in all alternatives. This population, however, would benefit from decommissioning of trail 424 adjacent to the proposed construction under Alternative 5 and the Decision. Road 8852 intersects 2 core Northern rattlesnake-plantain populations and has a decommissioned status under the Alternative 1. This route would be open for motorized use with all of the Summer Alternatives and the Decision. Because this road currently exists, the impact would be from potential invasive species establishment or travel off the prism. Field surveys would be needed prior to road and trail prism modification to determine if sensitive plants are present and need to be avoided.

One of the goals of the Northern Rattlesnake-Plantain Conservation Strategy (USDA Forest Service 1995) is to retain suitable, but unoccupied habitat of northern rattlesnake-plantain for the colonization and establishment of new populations to support the meta-population. In addition, large core areas would be designated and managed to maintain habitat integrity and avoid fragmentation of occupied habitat. Of the ten sub-drainages containing core populations within the project area, travel management activities in two of the sub-drainages may impact core sensitive plant populations. Converting decommissioned road 8852 in Blankenship Gulch to a motorized system trail under all the action alternatives has the potential to introduce invasive species in the Dry Fork Belt Creek Sub-drainage population. Decommissioning road 8863 with Alternative 5 and the Decision would benefit the Hay Coulee core population in the Sage Creek Sub-drainage in the long-term.

There is a high probability that short-styled columbine and Northern rattlesnake-plantain habitat is present along route 825 proposed for road construction in Alternatives 3 and 4. There is also a high probability that short-styled columbine habitat is present adjacent to and intersecting the non-motorized trail construction routes proposed for the Sawmill Gulch, Wagner Gulch, and Logging Creek area under Alternative 3 and the Decision. There is a moderate probability that short-styled columbine is present along proposed route N9, northeast of road 263. Short-styled

columbine may also be present on the proposed route in the Decision to be constructed between Logging Creek and Tobin Gulch. Potential habitat for Austin's knotweed may occur along a proposed non-motorized abandoned trail realignment/reconstruction route connecting trails 436 and 437 in Alternatives 3 and 5. The proposed Jellison Place and Barker Cemetery youth loops are located adjacent to areas with a high probability of supporting short-styled columbine habitat. In each of these instances, no sensitive plant species have been surveyed for or previously identified. Field surveys would need to be conducted prior to ground disturbing activities to determine habitat status and the presence of sensitive plants.

Ground disturbing activities associated with implementation of the Travel Management Plan would increase the likelihood of invasive plant species establishment along system roads and trails. Road and trail management activities such as grading, widening, and other improvements or decommissioning provide fresh seedbeds for invasive species establishment.

The Decision would allow motorized wheeled-vehicle travel off designated system roads and trails for parking or camping within one vehicle length of roads and trails, unless otherwise signed. If allowed in locations with known sensitive plant populations, travel off roads or trails has the potential to damage or remove plants. The exact impact would depend upon plant density and location and use of the off-route site.

Direct and Indirect Effects Common to All Alternatives

Existing system roads and trails would not have a major impact on sensitive plant species since the plants have established off the existing road or trail prism. Some activities associated with the roads and trails do have the potential to negatively affect individual plants, but should not cause population viability losses. Foot, horse, and motorized travel outside the road or trail prism or cross-country travel could negatively impact individual plants through damage or direct removal, but would not likely remove the entire population. Road and trail maintenance activities can disturb soil and provide fresh seedbeds for invasive species establishment. Travel along open routes, regardless of the mode, increases the potential for invasive species seed transport. Invasive plant populations have been documented within close proximity to about 21 sensitive plant populations. Invasive plants are aggressive colonizers that can have long-term negative effects on sensitive plant species and/or potential habitat through direct competition and displacement. Because herbicide use to manage invasive species can kill sensitive plants, mitigation measures identified in the Noxious Weed Control FEIS (USDA Forest Service 1994) for herbicide application are required and would minimize impacts to known sensitive plant populations.

Cumulative Effects Common to All Alternatives

Roads and trails within the project area have the potential to be improved, modified, or closed and new roads and trails may be constructed in the future following appropriate environmental analysis. These future projects may have the potential to affect sensitive plant populations, depending on the location and scope of the project. However, project design and mitigation measures should minimize potential impacts. In addition, numerous undetermined routes in the project area may be decommissioned based on future analysis. Decommissioning measures could range from erecting a sign or placing a closure gate to complete route removal including soil compaction relief, grading to contour, establishing permanent drainage, and seeding. The impacts to sensitive plant populations would depend upon the determined decommissioning method and location. In the above described cases, site specific analysis and field surveys for

plant populations would be completed prior to project implementation. Appropriate mitigation measures would be incorporated to eliminate or minimize negative effects.

Fuels reduction and timber management projects are currently planned and will continue to be planned for the Jefferson Division. These projects and any associated road use or re/construction have the potential to detrimentally impact individual plants and/or populations through direct plant removal or damage, forest vegetation successional shifts, or habitat alteration (e.g. shade reduction) within or adjacent to plant populations. Prescribed burning and/or wildfire (natural and human-caused) also have the potential to detrimentally impact sensitive plants. These actions may kill individual plants or entire populations, modify habitat (understory and overstory vegetation) to an unsuitable condition, or remove the habitat entirely. Prior to implementation of future management decisions, site specific analysis and field surveys would be completed to determine the presence/absence of sensitive plant populations, determine potential effects to sensitive plants from the actions, and prescribe mitigation measures. Typically, adverse actions to plant populations would be avoided.

Determination of Effects

Table 6 indicates the determination of effects for each sensitive plant species under Summer Alternatives 3, 4, 5, and the Decision.

Table 6. Determination of Effects

SPECIES	SUMMER ALT. 1	SUMMER ALT. 3	SUMMER ALT. 4	SUMMER ALT. 5	SUMMER DECISION
Short-styled columbine	NI	MIIH	MIIH	MIIH	MIIH
Northern wild-rye	NI	MIIH	MIIH	MIIH	MIIH
Northern rattlesnake-plantain	NI	MIIH	MIIH	MIIH	MIIH
Missoula phlox	NI	MIIH	MIIH	MIIH	MIIH
Austin's knotweed	NI	MIIH	MIIH	MIIH	MIIH
English sundew	NI	NI	NI	NI	NI
Linear-leaved sundew	NI	NI	NI	NI	NI
Hall's rush	NI	MIIH	MIIH	MIIH	MIIH
Barratt's willow	NI	NI	NI	NI	NI
Water bulrush	NI	NI	NI	NI	NI
Alpine meadowrue	NI	NI	NI	NI	NI
Round-leaved orchis	NI	NI	NI	NI	NI
Lackschewitz' milkvetch	NI	NI	NI	NI	NI
Upward-lobed moonwort	NI	NI	NI	NI	NI
Peculiar moonwort	NI	NI	NI	NI	NI
Small yellow lady's slipper	NI	NI	NI	NI	NI
Sparrow's-egg lady's-slipper	NI	NI	NI	NI	NI
Giant helleborine	NI	NI	NI	NI	NI
Lackschewitz' fleabane	NI	NI	NI	NI	NI
Macoun's gentian	NI	NI	NI	NI	NI
Stalked-pod crazyweed	NI	NI	NI	NI	NI
Blunt-leaved pondweed	NI	NI	NI	NI	NI
Five-leaved cinquefoil	NI	NI	NI	NI	NI

NI = No Impact
MIIH = May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or loss of viability to the population or species.
WIFV = Will impact individuals or habitat with a consequence that the action may contribute to a trend towards Federal listing or cause a loss of viability to the population or species.

V. Mitigation Measures

- Site-specific field surveys would be conducted prior to ground disturbing activities to determine the presence or absence of sensitive plants.
- All known sensitive plant species populations would be delineated and protected from ground disturbing activities. The Northern Rattlesnake-Plantain Conservation Strategy (USDA Forest Service 1995) guidelines would be applied where appropriate.
- Herbicide applications along roads and trails would comply with guidelines described in the Lewis and Clark National Forest Noxious Weed Control Final Supplemental Environmental Impact Statement and Record of Decision (USDA Forest Service 1994) and would maintain a 100-foot buffer around known sensitive plant populations.

VI. Determinations

It is my determination that the proposed Little Belt, Castle, and North Half Crazy Mountains Travel Management Plan may impact short-styled columbine, Northern wild-rye, Northern rattlesnake-plantain, Missoula phlox, Austin's knotweed, and Hall's rush individuals or habitat, but will not likely contribute to a trend towards Federal listing or loss of viability to the population or species. Several populations of short-styled columbine, Northern rattlesnake-plantain, and Missoula phlox will benefit from the decommissioning of roads and trails. There will be no impact upon the other plant species that the Northern Region's Regional Forest deems sensitive. These determinations would be reviewed following site-specific field surveys prior to ground disturbing activities needed to implement the Travel Management Plan.

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Prepared by: /s/ Tanya E. Murphy
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Lewis and Clark National Forest

APPENDIX C

BIOLOGICAL EVALUATION/ASSESSMENT

LEWIS AND CLARK NATIONAL FOREST

Little Belt, Castle, and North Half Crazy Mountains Travel Management Plan

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This biological evaluation/assessment (BE/BA) meets the requirements of FSM 2672.4 and complies with 36 CFR 219.19 and 241.1. It conforms to Section 7 of the Endangered Species Act, 19 U.S.C. 1536(c), 50 CFR 402.12(f) and 402.14(c).

/s/ Laura Conway _____ ____August 13, 2007_____

Forest Wildlife Biologist Date

SUMMARY

The Lewis and Clark National Forest (LCNF) proposes to revise Travel Management in the Little Belt, Castle, and north half of the Crazy Mountains. This Biological Evaluation/Assessment analyzes the potential impacts of the Proposed Plan on four species with status under the endangered species act: grizzly bear (threatened), gray wolf (endangered), Canada lynx (threatened), and sage grouse (candidate); and eleven species designated as sensitive by the Regional Forester: bald eagle, American peregrine falcon, flammulated owl, burrowing owl, black-backed woodpecker, Townsend's big-eared bat, wolverine, northern bog lemming, westslope cutthroat trout, boreal toad, and greater short-horned lizard.

Grizzly bear do not inhabit the project area, and the Decision Alternatives reduce the miles of motorized trails and roads available and the total area open to snowmobiling. The proposed travel plan would have *no effect* on grizzly bears or their habitat.

Gray wolves are transient visitors to the project area. The Decision Alternatives would reduce the total mileage of motorized routes and the total area available to snowmobiles in the area. The Decision Alternatives reduce the road densities, increase elk security habitat, decrease the density of trails in elk calving areas and elk and mule deer wintering areas, and improve elk habitat effectiveness. Motorized and non-motorized recreation still has the potential to cause elk and deer to leave forest lands for private lands. Therefore the Proposed Plan *is not likely to jeopardize the continued existence of* gray wolves in the Greater Yellowstone Ecosystem.

The Winter Decision Alternative would decrease the total area available to snowmobiles in winter, thus reducing the potential for dispersed snow compaction and for fragmentation of Canada lynx travel and foraging habitat. The Winter Decision Alternative would slightly increase the existing mileage of designated over-the-snow routes and roads used regularly by snowmobiles in order to decrease the area open to snowmobiles. Because this project is within secondary, unoccupied habitat for lynx and habitat values are being maintained or improved, there would be *no effect* on Canada lynx or their habitat.

There are no known sage grouse leks in the project area. The Decision Alternatives would not alter sage habitat. Therefore the proposed plan would have *no effect* on sage grouse or their habitat.

DETERMINATION OF EFFECTS

	SUMMER					WINTER			
SPECIES	ALT 1	ALT 3	ALT 4	ALT 5	Decision	ALT 1	ALT 2	ALT 3	Decision
1. Grizzly Bear	NE	NE	NE	NE	NE	NE	NE	NE	NE
2. Gray Wolf	NLJ	NLJ	NLJ	NLJ	NLJ	NLJ	NLJ	NLJ	NLJ
3. Canada Lynx	NE	NE	NE	NE	NE	NE	NE	NE	NE
4. Sage Grouse	NE	NE	NE	NE	NE	NE	NE	NE	NE
5. Bald Eagle	NI	NI	NI	NI	NI	NI	NI	NI	NI
6. Peregrine Falcon	MIIH	MIIH	MIIH	MIIH	NI	NI	NI	NI	NI
7. Flammulated Owl	NI	NI	NI	NI	NI	NI	NI	NI	NI
8. Burrowing Owl	NI	NI	NI	NI	NI	NI	NI	NI	NI
9. Black-backed Woodpecker	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH
10. Townsend's Big-Eared Bat	NI	NI	NI	NI	NI	NI	NI	NI	NI
11. Wolverine	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH	MIIH
12. Northern Bog Lemming	NI	NI	NI	NI	NI	NI	NI	NI	NI
13. Westslope Cutthroat Trout	WIFV	WIFV	MIIH	MIIH	MIIH				
14. Boreal Toad	MIIH	MIIH	MIIH	MIIH	MIIH				
15. Greater Short-horned Lizard	NI	NI	NI	NI	NI	NI	NI	NI	NI

NE = No Effect
NLAA = Not Likely To Adversely Affect
NLJ = Not Likely to Jeopardize
NI = No Impact
MIIH = May Impact Individuals or Habitat, but Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species
WIFV* = Will Impact Individuals or Habitat with a Consequence that the Action may Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species
***Trigger for a Significant Action**

CONSULTATION REQUIREMENTS

In accordance with the Endangered Species Act (ESA), its implementation regulations, and FSM 2671.4, the Lewis and Clark National Forest is not required to request written concurrence from the United States Fish and Wildlife Service (FWS) with respect to determinations of no effect on gray wolf, Canada lynx, grizzly bear, and sage grouse.

NEED FOR RE-ASSESSMENT BASED ON CHANGED CONDITIONS

The Biological Assessment findings are based on the best current data and scientific information available. A revised Biological Assessment must be prepared if: (1) new information reveals affects, which may impact threatened, endangered, and proposed species or their habitats in a manner or to an extent not considered in this assessment; (2) the Proposed Plan is subsequently modified in a manner that causes an affect, which was not considered in this assessment; or (3) a new species is listed or habitat identified, which may be affected by the action.

INTRODUCTION

The purpose of this Biological Assessment/Evaluation (BA/BE) is to review certain USDA Forest Service actions on the Lewis and Clark National Forest. The Forest proposes to determine which roads, trails, and airfields will be part of the designated transportation system and what restrictions on types of travel and/or seasons of travel will apply.

The project area includes all National Forest System lands within the Little Belt Mountains (900,310 acres), Castle Mountains (79,820 acres), and north half of the Crazy Mountains (69,980 acres) on the Lewis and Clark National Forest. The 1,050,110 acres encompassed by the analysis comprise about 86% of the lands within the Jefferson Division of the Lewis and Clark National Forest, or 53% of the entire area managed by the Lewis and Clark National Forest.

The effects of the proposed action on threatened, endangered, and sensitive species and species proposed for listing under the Endangered Species Act are evaluated. A determination is made as to whether any of the alternatives would lead to a trend in Federal listing or in a loss of viability of any sensitive species or if the project may affect any U.S. Fish and Wildlife Service (FWS) Threatened, Endangered, Proposed or Candidate species.

This document will consider the following threatened, endangered and sensitive species that either occur or have the potential to occur or be affected by the Little Belt, Castle, and North Half Crazy Mountains Travel Management Plan:

grizzly bear	(*Ursus arctos horribilis – threatened*)
gray wolf	(*Canis lupis – endangered*)
Canada lynx	(*Lynx canadensis – threatened*)
sage grouse	(*Centrocercus urophasianus – candidate, sensitive*)
bald eagle	(*Haliaeetus leucocephalus - sensitive*)
American peregrine falcon	(*Falco peregrinus anatum - sensitive*)
flammulated owl	(*Otus flammeolus – sensitive*)
burrowing owl	(*Athene cunicularia – sensitive*)
black-backed woodpecker	(*Picoides arcticus – sensitive*)
Townsend's big-eared bat	(*Corynorhinus townsendii - sensitive*)
wolverine	(*Gulo gulo - sensitive*)
northern bog lemming	(*Synaptomys borealis – sensitive*)
westslope cutthroat trout	(*Oncorhynchus clarkii lewisi – sensitive*)
western toad	(*Bufo boreas – sensitive*)
greater short-horned lizard	(*Phrynosoma hernandesi - sensitive*)

The following threatened, endangered and sensitive species occur on the Lewis and Clark National Forest, but are not considered under the Little Belt, Castle, and North Half Crazy Mountains Travel Management Plan because the project area does not contain suitable habitat for or sightings of mountain plover (*Charadrius montanus* – proposed threatened), harlequin duck (*Histrionicus histrionicus – sensitive*), fisher (*Martes pennanti - sensitive*), or northern leopard frog (*Lithobates pipiens – sensitive*).

CONSULTATION TO DATE

On August 8, 2007, the USDI Fish and Wildlife Service (FWS) website (http://www.fws.gov/montanafieldoffice/Endangered_Species/Listed_Species.html) provided a list of threatened and endangered species and species proposed for listing that may occur in or be affected by projects on the Jefferson Division of the Lewis and Clark National Forest. The species list includes the nonessential, experimental Yellowstone population of gray wolf.

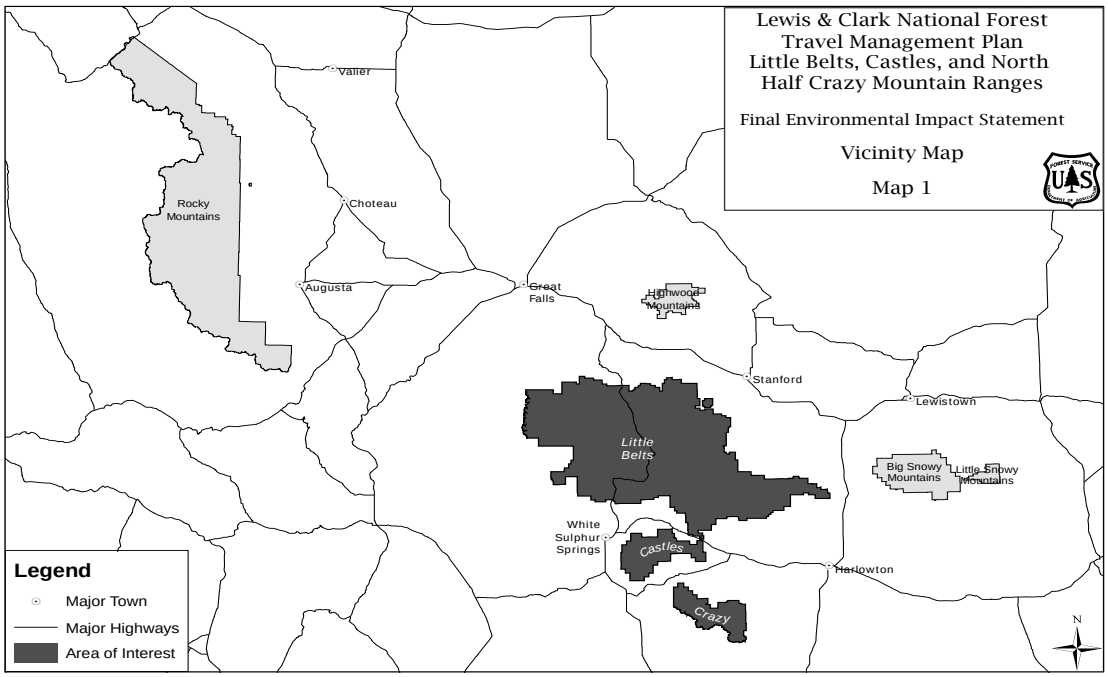
CURRENT MANAGEMENT DIRECTION

Programmatic management direction for the Forest is provided by the Lewis and Clark Land and Resource Management Plan (LRMP) (USDA Forest Service 1986), as amended. The LRMP was developed using the guidelines provided by the Forest and Rangeland Renewable Resource Planning Act of 1974, as amended by the National Forest Management Act of 1976.

DESCRIPTION OF PROPOSED PROJECT

The project area includes all National Forest System lands within the Little Belt Mountains (900,310 acres), Castle Mountains (79,820 acres), and north half of the Crazy Mountains (69,980 acres) on the Lewis and Clark National Forest. The 1,050,110 acres encompassed by the analysis comprise about 86% of the lands within the Jefferson Division of the Lewis and Clark National Forest, or 53% of the entire area managed by the Lewis and Clark National Forest.

The vicinity map (Map 1) shows the location of the Little Belt, Castle, and north half Crazy Mountain ranges in relation to other landmarks in Montana.



In December 2005, a new travel management rule took effect for all National Forest System lands. The new Federal regulation directs National Forests to restrict motorized travel to designated roads, trails, and areas only. All National Forests are expected to complete a planning process by the end of 2009 to determine what roads, trails, and areas would be designated for motorized travel. This analysis is part of the planning process to select routes for designation as motor vehicle roads, trails and areas under the new regulation.

Given the purpose and need, the deciding official would review the existing condition, all action alternatives analyzed in detail and the environmental consequences in order to make the following decision(s):

> **Restrictions on types of travel and/or seasons of travel.**
> Identify areas, roads and trails that are appropriate for various motorized modes of travel, and identify areas, roads, and trails that are appropriate for various non-motorized modes of travel. Impose seasonal or yearlong restrictions on any particular mode of travel based on considerations of safety, administration, public access, disabled access, recreational use, conflicts between uses, water quality, soil erosion, noxious weeds, wildlife and fisheries habitat, cultural resources and law enforcement.
>
> **Roads, trails, and airfields to be part of the designated transportation system.**
> Designate roads, trails, and airfields that would be recognized as system routes for management as part of the Forest transportation system.

ALTERNATIVES CONSIDERED IN DETAIL

Under all alternatives, motorized wheeled vehicle travel off designated system roads and trails for parking or dispersed camping would be allowed within one vehicle (and attached trailer) length. Mitigation measures developed by the interdisciplinary team would be carried out under all alternatives. These measures are listed in Appendix D to the Final Environmental Impact Statement (FEIS). The Best Management Practices listed in Appendix G to the FEIS would be applied under all alternatives, and would help mitigate potential impacts of any alternative chosen.

Table 1 shows the proposed miles of roads and trails by summer alternative. Summer – Alternative 2 was the "proposed action" released in September 2005 for public comment. Summer – Alternative 2 was not analyzed in detail. Table 2 displays the miles of over-the-snow routes for winter alternatives.

No Action Alternatives

SUMMER - ALTERNATIVE 1
The No Action alternative provides a baseline for estimating the effects of other alternatives. The No Action alternative means no change from current management direction. The 1988 Travel Plan and the 2001 Three-State OHV Decision define travel management that is currently enforced on the ground. This is the existing condition, and it would be carried forward if there

were no decision made to change travel management. Under this alternative the season and type of use currently allowed on existing roads, trails, and areas in the Little Belt, Castle, and north half Crazy Mountains would not change. Opportunities for motorized wheeled vehicle travel are widely dispersed throughout the three mountain ranges and vary in type and season.

WINTER - ALTERNATIVE 1
The 1988 Travel Plan defines over-snow travel management that is currently enforced on the ground. This is the existing condition that most people are familiar with, and establishes a basis to compare the effects of other alternatives. Under this alternative the season and type of use currently allowed during the winter months in the Little Belt, Castle, and north half Crazy Mountains would not change. Opportunities for motorized over-snow travel are widely dispersed throughout the three mountain ranges and vary in type and season.

Action Alternatives

SUMMER - ALTERNATIVE 3
This alternative features a network of single-track loop trails for motorcycles, and loop trails for ATVs in all three mountain ranges. Non-motorized foot and horse travel is accommodated in the upper Tenderfoot Creek, Hoover Creek, Sawmill-Wagner Gulch, Lost Fork Judith River, Steiner Creek, and Yogo Creek areas of the Little Belt Mountains. Four airstrips are also proposed in the Little Belt Mountains.

SUMMER - ALTERNATIVE 4
This alternative features large blocks of "quiet" non-motorized areas in the Middle Fork Judith Wilderness Study Area, Tenderfoot-Deep Creek, Eagle Creek, Pilgrim Creek, Hoover-Big Baldy, Daisy Dean-Nevada Creek, Haymaker Creek, and East Fork Spring Creek areas in the Little Belt Mountains. It also features large non-motorized blocks in the west half of the Castle Mountains, and north half of the Crazy Mountains. Single-track loop trails for motorcycles, and loop trails for ATVs are accommodated in the Calf Creek, Jumping Creek, Jefferson Creek, Smoky Mountain, Dry Wolf Creek, South Fork Judith River, Spring Creek, and eastern portion of the Little Belt Mountains. No airstrips are proposed.

SUMMER - ALTERNATIVE 5
This alternative attempts to blend public preferences with resource concerns for all three mountain ranges. It includes actions not directly considered in Alternatives 1, 3, or 4 to help display and compare the effects of options to address some specific issues. It features a network of single-track loop trails for motorcycles, and loop trails for ATVs in the Little Belt Mountains. The Castle Mountains accommodates one ATV loop trail in the west half, and a network of roads in the east half. One loop ATV trail in conjunction with the Gallatin National Forest is provided in the Crazy Mountains. Non-motorized foot and horse travel is promoted in large blocks of quiet areas along the Smith River, upper Tenderfoot Creek, Pilgrim Creek, Lost Fork Judith, and South Fork Judith river in the Little Belt Mountains. In the Castle Mountains there would be large quiet areas in the Beartrap Peak-Woodchuck Mountain area, and the Castle Mountain area; and the north half of the Crazy Mountains is predominantly a large area for non-motorized travel. Two airstrips are proposed in the Little Belt Mountains.

Table 1: Miles of Roads and Trails by Summer Alternatives and Decision

	Alt. 1	Alt. 3	Alt. 4	Alt. 5	Decision
Roads	1546.7	731.1	974.6	934.7	740.3
Motorized Trails	703.0	787.9	422.1	545.8	625.2
Non-Motorized Trails	346.9	361.7	781.7	519.5	573.8
TOTAL	**2596.6**	**1880.7**	**2178.4**	**2000**	**1939.3**
Eliminated roads/trails	10.2	513.7	537.4	651.3	706.0

WINTER - ALTERNATIVE 2

This alternative depicts an agreement between the Montana Snowmobile Association, Montana Wilderness Association, and other organizations for management of winter recreation in the Little Belt Mountains. Forest Service managers developed the "proposed winter recreation action" for the Castle and north half Crazy Mountains. This alternative is the "proposed action" for winter over-snow travel management that was released in September 2005 for public comment. It features maintenance of the existing groomed and designated snowmobile trail system in the Little Belt Mountains, and provides for open snowmobiling in about half of the Little Belt Mountains. Similarly, about two-thirds of the Castle Mountains, and half of the Crazy Mountains would remain open to snowmobiling. Developed cross-country ski areas would be promoted in the Mizpah, Deadman, O'Brien Park, and Jefferson Creek areas. Big-game winter ranges currently closed to snowmobiling would continue to be restricted. Large blocks of non-motorized quiet areas would be provided in the Middle Fork Judith WSA, Tenderfoot-Deep Creek-Pilgrim Creek-Dry Wolf area, and northeast end of the Little Belt Mountains. The east one-third of the Castle Mountains, and the east half of the Crazy Mountains would also provide quiet areas.

WINTER - ALTERNATIVE 3

This alternative was developed by Forest Service managers and specialists for all three mountain ranges to protect big-game winter ranges, wolverine denning habitat, and cross-country ski areas. It includes actions not directly considered in Winter Alternatives 1 or 2 to help display and compare the effects of options to address some specific issues. It features maintenance of the existing groomed and designated snowmobile trail system in the Little Belt Mountains, and provides for open snowmobiling in about two-thirds of the Little Belt Mountains. Similarly, about two-thirds of the Castle Mountains, and one-third of the Crazy Mountains would remain open to snowmobiling. Developed cross-country ski areas would be promoted in the Mizpah, Deadman, O'Brien Park, and Jefferson Creek areas. Large blocks of non-motorized quiet areas would be provided in the Smith River-Deep Creek area, Thunder Mountain, Barker Mountain, Peterson Mountain, Big Baldy Mountain, Kelly Mountain, Bluff Mountain, and northeast end of the Little Belt Mountains. The Four Mile Creek area and east one-third of the Castle Mountains; and the northwest corner and east half of the Crazy Mountains would also be quiet areas.

Table 2: Miles of Over-The-Snow Routes by Winter Alternative

Alternative	Miles
1	322.3
2	431.2
3	510.9
Decision	438.3

DECISION ALTERNATIVES

The Summer Decision incorporates public comments and evaluation of effects documented in the FEIS analysis. It is based on Summer Alternative 5 blended with parts of other alternatives. The Winter Decision is Winter Alternative 2 with a few minor changes.

MITIGATION COMMON TO ALL ALTERNATIVES

The Interdisciplinary Team developed mitigation measures to be used as part of all the action alternatives. These mitigation measures would be applied to all alternatives to minimize, reduce, rectify, eliminate, avoid, and/or compensate for some of the impacts to resources. Those mitigation measures relevant to wildlife and fish resources are listed here.

MITIGATION MEASURE	RESPONSIBLE OR AFFECTED GROUP	INTENT
Apply applicable Soil and Water Best Management Practices (BMPs).	Forest Service.	Minimize effects on soil and water resources.
Apply applicable Noxious Weed Prevention Best Management Practices (FSM-2080, R1).	Forest Service.	Minimize spread of noxious weeds.

BEST MANAGEMENT PRACTICES

The Lewis and Clark National Forest Plan (page 2-50, F-1) states that the Forest will "utilize adequate soil and water conservation practices to protect soil productivity and to control non-point water pollution from project activities, using as a minimum, practices specified in any State developed "Best Management Practices". A project which causes excessive water pollution, undesirable water yield, soil erosion, or site deterioration will be corrected where feasible, or the project will be reevaluated or terminated. Montana State Water Quality Standards require the use of reasonable land, soil, and water conservation practices as the controlling mechanism for non-point pollution. Use of BMPs is also required in the Memorandum of Understanding (MOU) between the Forest Service and the State of Montana as part of our responsibility as the Designated Water Quality Management Agency on National Forest System lands.

The practices described in Appendix G of the FEIS are tiered to the practices in FSH 2509.22 (Soil and Water Conservation Practices Handbook) and would be incorporated into all project activities. The practices were developed as part of the NEPA process, with interdisciplinary involvement, and meet Forest and State water quality objectives.

EXISTING ENVIRONMENT

The following sections provide species and habitat accounts for the species considered in this document.

Threatened and Endangered Species

Grizzly Bear

Species Account

There are no recent records of grizzly bear within the project area (Montana Natural Heritage Tracker database 2007).

Habitat Account

In Montana, grizzlies primarily use meadows, seeps, riparian zones, mixed shrub fields, closed timber, open timber, sidehill parks, snow chutes, and alpine slabrock habitats. Habitat use is highly variable between areas, seasons, local populations, and individuals (Servheen 1983, Craighead 1982, Aune 1984). Historically, the grizzly was primarily a plains species occurring in higher densities throughout most of eastern Montana. There is habitat for grizzly bear in the project area. This area is outside the recovery zone for grizzly bear in Montana.

Gray Wolf

Species Account

According to the Montana Natural Heritage Tracker database (2007), there is one sighting of gray wolf near the project area. On March 12, 2001 a wolf was observed in the Smith Creek area, off forest lands. Wolf have also been reported from the Blacktail Hills and other locations in the project area.

Habitat Account

The gray wolf exhibits no particular habitat preference except for the presence of native ungulates within its territory on a year round basis. In Minnesota and Wisconsin, wolves usually occur in areas with few roads and human disturbance (Thiel 1985, Mech et al. 1988, Mech 1989). Wolves establishing new packs in Montana have demonstrated greater tolerance of human presence and disturbance than previously thought characteristic of this species. They have established territories where prey are more abundant at lower elevations than expected, especially in winter (Montana Fish, Wildlife and Parks 2003). There is habitat for gray wolf in the project area. The project area is part of the non-essential, experiemental Yellowstone population area.

Canada Lynx

Species Account

Canada lynx (*Lynx canadensis*) are known to inhabit the Little Belt Mountains. Verified lynx occurrence records (trapping records, museum specimens, etc.) indicate lynx historically occurred within the Little Belt Mountain Range (Ruggerio et al. 2000). Montana Fish, Wildlife and Parks (MFWP) records indicate that the last legally trapped lynx in the Little Belts occurred in 1980 and 1981, when three individuals were taken. However, and as is the case with many occurrence data in the lower 48 states, researchers are currently unsure if these data represent the

presence of persistent populations, or if they are simply immigrating individuals from known populations in northwestern Montana, Canada, or Alaska (*Ibid*).

Furbearer snow track surveys conducted by U.S. Forest Service and MFWP biologists in various locations within the Little Belt Mountain Range since 1994 have found three separate track sets believed to be that of lynx. One of those was recorded in April 2001 was located near Hunter Springs (upper Lost Fork Drainage). Wildlife Biologists on the Lewis and Clark National Forest have been participating in a National Lynx Survey project the past three years that includes the Little Belt Mountain Range. The hair snagging survey in the Little Belt Mountains covers approximately 64,000 acres of contiguous lynx habitat. DNA results indicate that no lynx where found in the Little Belts during the 1999, 2000, or 2001 surveys. A Forest Wildlife Technician conducting this survey reported visually sighting what he thought was a lynx in September of 2001. However, this visual observation (as well as the snow track observations mentioned earlier) lacks positive validation, and it is therefore uncertain if lynx individuals occur anywhere within the Little Belt Mountain Range at the present time. If lynx do exist in the Little Belts, they likely occur at very low densities.

Habitat Account

Canada lynx require a mosaic of forest conditions, from early succession to old-growth coniferous and deciduous forest stands. They use areas with dense undergrowth for hunting and mature spruce and fir forest for denning (Koehler et al. 1979; Koehler and Brittell 1990; Ruggiero et al. 2000). Lynx habitat is closely associated with their primary prey, snowshoe hare. Lynx have special adaptations that enable them to live at high elevations and endure the cold winters and deep snows of the high mountains. Lynx are known to occur above 4,000 feet in Idaho and Montana. However, based on lynx track occurrences and the elevation break for the subalpine fir habitats in the Little Belts, lynx typically use habitats above 6,500 feet in elevation in the region. Denning habitat is described as dense, mature spruce or subalpine fir forest, with a high density of downfall logs (Koehler and Brittell 1990; Ruggiero et al. 2000). Minimal disturbance from human activities is an important feature of denning sites. The selection of habitat by lynx is closely linked with the habitat of its primary prey, snowshoe hare (*Lepus americanus*). In general, hares prefer mixed conifer stands for cover, with openings of shrubby hardwoods for feeding (Koehler 1990; Koehler et al. 1979; Ruggiero et al. 2000).

The project area is considered secondary, unoccupied habitat for lynx. The Northern Rockies Lynx Amendment (USDA Forest Service 2007) contains Management Direction that sets forth objectives, standards and goals. In secondary, unoccupied habitat the management direction should be considered, but it is not required (USDA Forest Service 2007, Attachment 1, page 1)

Sage Grouse

Species Account

There are several leks recorded in areas surrounding forest lands (Montana Natural Heritage Tracker database 2007). There are; however, no records of sage grouse leks within the project area (Grove, personal communication 2007).

Habitat Account
Sagebrush is the preferred habitat (FWP). They use 6 to 18 inch high sagebrush covered benches in June to July (average 213 acres); move to alfalfa fields (144 acres) or greasewood bottoms (91 acres) when forbs on the benches dry out; and move back to sagebrush (average 128 acres) in late August to early September (Peterson 1969). There is sage habitat in the project area at lower elevations.

Sensitive Species

Bald Eagle

Species Account
The Montana Natural Heritage Tracker Database (2007) reports breeding bald eagles along the Sun River, Missouri River, Dearborn River, Smith River, and Musselshell River. Only the Smith River falls within the project area, however the nest is not located on Forest Service lands. Bald eagle also winter on the major rivers surrounding the forest, and will opportunistically forage on forest lands during winter months.

Habitat Account
In Montana, as elsewhere, the Bald Eagle is primarily a species of riparian and lacustrine habitats (forested areas along rivers and lakes), especially during the breeding season. Important year-round habitat includes wetlands, major water bodies, spring spawning streams, ungulate winter ranges and open water areas (Bureau of Land Management 1986). Wintering habitat may include upland sites. Nesting sites are generally located within larger forested areas near large lakes and rivers where nests are usually built in the tallest, oldest, large diameter trees. Nesting site selection is dependent upon maximum local food availability and minimum disturbance from human activity (Montana Bald Eagle Working Group 1994).

American Peregrine Falcon

Species Account
There is a peregrine falcon nesting along the Smith River, at the Sunset eyrie. This eyrie is located approximately 0.3 miles from trail 331. In 2007 a possible peregrine was sighted in the Belt Creek Canyon between the town of Monarch and the Pilgrim Creek trailhead.

Habitat Account
Nests typically are situated on ledges of vertical cliffs, often with a sheltering overhang. Ideal locations include undisturbed areas with a wide view, near water, and close to plentiful prey. Substitute man-made sites can include tall buildings, bridges, rock quarries, and raised platforms. There is nesting habitat within the project area.

Flammulated Owl

Species Account
There are no records of this species in the project area (Montana Natural Heritage Tracker database 2007). No flammulated owls have been recorded on call playback surveys conducted on the Jefferson Division in the past twelve years. Surveys have been conducted in old-growth ponderosa pine and Douglas-fir habitats in the project area (2002). On other Forests east of the Continental Divide in Montana, communal nest sites have been documented in old growth,

ponderosa pine and old growth Douglas-fir (in the northern Flint, east Pioneer, southeast Pintler, and north Sapphire Mountains). In the project area much of the low-elevation, old-growth forest is present with dense understories of young regenerating trees which perhaps explains the absence of flammulated owls in the area (Hayward and Verner 1994).

Habitat Account

Flammulated owl (*Otus flammeolus*) is a Forest Service sensitive species that is typically associated with mature to old-growth ponderosa pine/Douglas-fir habitat. Flammulated owls prefer open mature to old-growth forests for foraging. Foraging occurs in the lower two-thirds of tree crowns or more typically prey (insects) is taken from ground, grass, and shrubs (Hayward and Verner 1994). These owls are secondary cavity nesters (Hayward and Verner 1994). Pileated woodpecker (*Dryocopus pileatus*) or northern flicker (*Colaptes auratus*) cavities would be the primary cavity source in the project area. This species is adapted to forests that were historically maintained by fire. Fire suppression has resulted in conversion of many ponderosa forests to shade-tolerant fir forests and increased the density of smaller trees.

Burrowing Owl

Species Account

There are no records of burrowing owl within the project area (Montana Natural Heritage Tracker database 2007).

Habitat Account

Burrowing owls are found in open grasslands, where abandoned burrows dug by mammals such as ground squirrels (*Spermophilus* spp.), prairie dogs (*Cynomies* spp.) and badgers (*Taxidea taxus*) are available. Black-tailed prairie dog (*Cynomys ludoviscianus*) and Richardson's ground squirrel (*Spermophilus richardsonii*) colonies provide the primary and secondary habitat for burrowing owls in the state. The burrows may be enlarged or modified, making them more suitable. Burrowing owls spend much time on the ground or on low perches such as fence posts or dirt mounds. The lower elevations of the project area provide suitable habitat for this species.

Black-backed Woodpecker

Species Account

Annual land bird monitoring surveys conducted in the Little Belts since 1994 detected black-backed woodpeckers in the Little Belt Mountains in 1998 (Montana Natural Heritage Tracker database 2007). Surveys were completed in wildfire areas located in the Little Belt Mountains in 1998 and again in 2001. The Harrison Wildfire of 1991 was surveyed during both years, and recorded sightings of black-backed woodpeckers. The 2001 surveys of the Lost Fork Ridge Wildfire (2000) recorded several northern three-toed woodpeckers, but no black-backed woodpeckers. The 2001 surveys of the Spring Creek Wildfire of 1999 recorded multiple sightings of black-backed woodpeckers.

Habitat Account

The black-backed woodpecker (*Picoides arcticus*) is found only in North America. Black-backed woodpecker spend the vast majority of their feeding time excavating (Cherry 1997).

Black-backed woodpeckers forage primarily on wood-boring beetle larvae by utilizing excavation techniques to extract larvae from sapwood.

The Lewis and Clark National Forest Plan identified the black-backed woodpecker as a species representative of cavity dependent species in mixed conifer forest types (Forest Plan, p. 2-35). Most research on black-backed woodpeckers indicates that they are dependent upon fires, particularly in the Northern Rockies which is most likely due to the abundance of wood-boring beetles that soon inhabit fire-killed stands. The abundance of wood-borers begins to decline after three years post-fire however, and the value for large numbers of black-backed woodpeckers appears to significantly decline after five to six years (Hutto 1995b; Powell 2000). Hutto (1995b) indicated that periodic fires may be critical for the long-term viability of black-backed woodpeckers. Although there are many bird species associated with post-fire habitats, research indicates that it would be difficult to find a forest bird species more restricted to a single vegetation cover type in the Northern Rockies than the black-backed woodpecker is to early post-fire habitats (Ibid). Bark beetle infestations in stands unaffected by fire may also be important to black-backed woodpeckers.

There is suitable habitat for black-backed woodpecker within the project area. Most notably, the Middle Fork and Rugby wildfires of 2007 are expected to provide habitat for the next several years.

Townsend's Big-eared Bat

Species Account

Townsend's big-eared bat were located in Lick Creek Cave in August 1999 (Montana Natural Heritage Tracker database 2007). Recent surveys have documented Townsend's big-eared bats in the nearby Judith and Little Rocky Mountain Ranges (MT Natural Heritage Program 1997, 2000).

Habitat Account

Townsend's big-eared bat (*Corynorhinus tendsendii*) is a Forest Service sensitive species. The species is considered globally secure in population numbers and distribution, but locally imperiled because of its rarity and specialized habitat needs (MT Natural Heritage Program 2002). Townsend's big-eared bats feed on insects, often showing an affinity for riparian areas (Torquemada and Cherry 1995). This species occurs in a wide variety of habitats. Its distribution tends to be geomorphically determined and is strongly correlated with the availability of caves or cave-like roosting habitat (e.g., old mines). This species is colonial with relatively strict roosting requirements, unlike species that seek refugia in crevices; they form highly visible clusters on open surfaces (e.g., domed areas of caves or attic ceilings). The most significant roosts, those having the largest aggregations and those most critical to population survival, are the winter hibernacula and the summer maternity roosts. Summer roost sites are typically caves or cave-like structures, but Townsend's big-eared bat has also been observed using large, hollowed boles of snags. Townsend's big-eared bats have been found at locations in western and south-central to eastern Montana.

Wolverine

Species Account

There are records of wolverine sightings or harvest within the project area dating from 2004, 2001, 2000, 1999, 1998, 1996, 1994, 1992, 1991, 1990 and farther back (Montana Natural Heritage Tracker database 2007).

Habitat Account

Wolverines (*Gulo gulo*) range widely, from subalpine talus slopes to big game winter ranges at low elevations. A distinct seasonal, elevation pattern was documented in Montana, with wolverines occupying higher ranges during the snow-free season as compared to winter. However, through track surveys and visual sightings, wolverines appear to use high elevations (greater than 6,500 feet) in the Little Belts yearlong. In the spring, wolverines may frequent riparian habitats (Hornocker and Hash 1981). Seventy percent of 576 radio-relocations of wolverines studied in the South Fork of the Flathead River were "in medium or scattered mature timber, with strong selection for forests featuring alpine fir, while the rest were primarily ecotonal areas. Dense young timber, burns, and wet meadows were rarely used, and there were no relocations in logging clearcuts" (Hornocker and Hash 1981). Food availability seems to have been the primary factor determining movements and habitat use. Mature or intermediate timber stands, especially edge and ecotonal areas such as around cliffs, slides, basins, and meadows, were preferred habitat. Wolverine have been reported to: "...occasionally cross clearcuts, but usually in a straight line and at a running gait, as compared to more leisurely and meandering (hunting) patterns in timber" (Hornocker and Hash 1981).

Wolverine are primarily scavengers. Many authors report carrion as a significant portion of winter diet, while other food items may include ground squirrels, marmot, snowshoe hares, mice and voles, and blueberries. Common winter foraging behavior involves searching for caches made by itself, other wolverines, or other carnivores. The presence of other predators is important to wolverine because of their reliance on carrion. There does not appear to be any single habitat type that can be identified as critical for the species, but large, isolated areas supporting a diverse prey base and diversity of habitats are believed to be required. However, forest cover may be important in some areas to escape predation by other predators.

Wolverines breed from late spring to early fall, but most breeding occurs during early summer. From one to five kits, generally two or three, are born from February through April. The kits grow rapidly, are weaned beginning in 7 to 8 weeks, and leave the den at 12 to 14 weeks. They reach adult size by early winter (Rausch and Pearson 1972; Wright and Rausch 1955). Den sites have been found in a variety of situations. Dens may be made under tree roots, under fallen logs, under boulders, in caves, in burrows under overhanging banks, talus habitats or in deep snow. Potential denning habitat is identified as those areas above 6,500 feet elevation lacking vegetation; these areas were classified as rock or snow/icefields in the Forest's landcover database (source: MT Gap Analysis; Wildlife Spatial Analysis Lab, The University of Montana 2002).

Northern Bog Lemming

Species Account

There are no sightings of northern bog lemming within the project area (Montana Natural Heritage Tracker database 2007).

Habitat Account

Northern bog lemmings in Montana have been found in at least nine community types, including Engelmann spruce, subalpine fir, birch, willow, sedge (*Carex*), spike rush (*Eleocharis*), or combinations of the above, often occurring in wet meadows, fens, or bog-like environments. Wright (1950) captured lemmings in a swampy area containing spruce trees, timothy, alder and other moist-site plants (Wright 1950). The Upper Rattlesnake Creek specimen was captured in a wet-sedge/bluejoint meadow near subalpine fir (Adelman 1979). Areas with extensive moss mats, primarily sphagnum, are the most likely sites in which to find new populations (Wright 1950, Reichel and Beckstrom 1994, Reichel and Corn 1997, Foresman 2001a).

Throughout their range a variety of habitats are occupied, especially near the southern edge of the global distribution, and include sphagnum bogs, wet meadows, moist mixed and coniferous forests, montane sedge meadows, krummholz spruce-fir forest with dense herbaceous and mossy understory, alpine tundra, mossy streamsides, and even sagebrush slopes in the case of *S. b. artemisiae* in British Columbia (Clough and Albright 1987). Typically, occupied habitat has high moisture levels. The northern bog lemming occupies burrow systems up to a foot deep, and also surface runways. Young are born in nests that may be underground or on the surface in concealing vegetation.

Westslope Cutthroat Trout

Species Account

Westslope cutthroat trout (WCT) are the only trout species native to the project area and occur in the upper reaches of approximately 50 streams in the Belt Creek, Smith River and Judith River drainages. WCT occupy less than 10% of their estimated historical range in this part of Montana. The remaining populations are typically isolated in less than 5 miles of habitat and many are vulnerable to ongoing threats from hybridizing and competing non-native fish, primarily rainbow and brook trout. Anglers are required to release all cutthroat trout, but some hooking mortality, misidentification and poaching is likely occurring. The Forest Service is a signatory to a Conservation Agreement for cutthroat trout in Montana, and the Lewis and Clark Forest is actively engaged in numerous partnership projects to monitor, protect and where feasible, restore WCT (Moser et al. 2007). Consequently, the status of most WCT populations is known from surveys within the last ten years, and many populations are surveyed annually.

Habitat Account

WCT prefer coldwater streams with relatively clean substrates, particularly in spawning areas, and sufficient flows from late summer through winter to maintain pool depths. Native WCT have been largely hybridized in or completely displaced from the lower reaches of project area streams, partly due to habitat changes such as warmer water temperatures and higher sediment levels that create competitive advantages for non-native trout. Even headwater streams are vulnerable to being taken over from WCT by brook trout. Although displacement of WCT has

also occurred in near-pristine streams, human activities including the development of the travel system has adversely affected some WCT habitats.

Western Toad

Species Account

There are several known breeding sites for western toads in the Smith River and Judith River basins. Breeding is sporadic and inconsistent from year to year. Adult toads have been observed along riparian areas and occasionally in the uplands within the project area. Local population trends are unknown, but abundance of the species in Montana is believed to have declined from historical levels (Werner et al. 2004).

Habitat Account

All breeding sites are associated with riparian areas and are typically shallow silt-bottom ponds with mostly open canopies that allow for quick solar warming in spring. Fish are usually not present at the site but may occupy adjacent waters. Adult toads can migrate considerable distances to gather at spawning sites, but no distinct migration corridors have been identified in the project area. Multiple spawning episodes are known to occur, and tadpoles of different sizes are often present at a single site. Success of later spawning efforts is dependent on breeding sites retaining adequate water levels through the larval development and metamorphosis period. Juvenile toads disperse widely from breeding sites. Adult toads seek cover and refuge in vegetation, woody debris and animal burrows between foraging periods.

Greater Short Horned Lizard

Species Account

There are no records of greater short horned lizard within the project area (Montana Natural Heritage Tracker database 2007).

Habitat Account

Habitat use in Montana is poorly described, but appears to be similar to other regions. Reports mention individuals on ridge crests between coulees, and in sparse, short grass and sagebrush with sun-baked soil (Mosimann and Rabb 1952, Dood 1980). On the southern exposures of the Pryor Mountains, Carbon County, individuals occur among limestone outcrops in canyon bottoms of sandy soil with an open canopy of limber pine-Utah juniper, and are also present on flats of relatively pebbly or stony soil with sparse grass and sagebrush cover (http://fwp.mt.gov/fieldguide/).

EFFECTS OF THE PROPOSED PROJECT

The proposed project is analyzed for its effects to both the species considered, and to the species habitat and habitat components. The analysis area used will be the watershed or watersheds for most species; the hunting district for game species; and the Lynx Analysis Unit (LAU) for lynx. Effects are described in general for all alternatives. Specific differences between alternatives are also described.

Grizzly Bear

Direct and Indirect Effects

The project area supports potential habitat, but habitat is outside the Recovery Zone and the current known distribution of grizzly bear. Populations do not exist in the Little Belt, Castle, or Crazy Mountains. Implementation of the project would have no effect on grizzly bear or its habitat for any alternative.

Cumulative Effects

There are no cumulative effects to grizzly bear, as there are no direct or indirect effects for any alternative.

Gray Wolf

Direct and Indirect Effects

The main direct effect to any individuals passing through the project area would be disturbance. At the current time there are no known rendezvous or den sites in the Little Belt, Castle or Crazy Mountains. Individuals located in the project area are likely transient, migratory individuals. Disturbance due to motorized or non-motorized use may result in an individual leaving an area or moving away from the source of disturbance. This could result in increased energetic costs and movement into less suitable habitat.

Table 3 shows the acres, by sixth code watershed, of land that will be impacted by new trail and road construction. The total acres impacted are very small for each alternative. The Decision impacts just under 30 acres, with no more than 7.1 acres in any one watershed. These newly constructed trails and roads would results in small, linear openings in habitat, and would slightly increase habitat fragmentation in the watersheds where they occur. The exact type of habitat impacted is unknown at this time. Alternative 1 proposes no new road or trail construction and therefore would not impact additional habitat. Alternative 3 proposed the most new construction.

As wolves are habitat generalists the impacts of new construction would primarily come from impacts to prey species. The impacts to big game is analyzed in the FEIS, and summarized here. Each action alternative reduces the miles of open roads, to various degrees, over the existing condition; eliminates roads and trails; and changes the miles of motorized and non-motorized trails as shown in Table 1. This changes impact elk security and habitat effectiveness, as discussed in the EIS, with the intent of keeping elk on the forest for longer periods. If gray wolf recolonize the project area alternatives that keep ungulates on forest lands would benefit the species.

Cumulative Effects

Timber harvest activities within one mile of den and rendezvous sites have the potential to displace wolves. Since there are no known den or rendezvous sites, no cumulative affects are expected related to timber harvest activities.

Grazing activities could negatively impact prey of grey wolves. At this time, elk populations in all hunting districts within the project area are at or above objective levels.

Table 3: Acres of Land Impacted by New Trail and Road Construction by Sixth Code Watershed and Alternative

Watershed number	Alt. 3	Alt. 4	Alt. 5	Decision
100301030701	0.5	0.4	0.5	0.4
100301030702	0	0	0	0.4
100301030703	2.3	0	2.8	3.0
100301030901	1.5	0	0	0
100301030902	1.0	0	0	0
100301031005	2.2	2.1	3.3	3.3
100301031006	1.5	0.8	0.8	0.8
100301050101	1.0	0.7	0.7	0.7
100301050102	2.1	0	0	0.4
100301050104	0	0	0.3	0.5
100301050203	1.9	0	1.5	7.1
100401030101	6.5	0	0	0
100401030104	2.8	0	3.8	4.6
100401030105	11.8	0	0	0
100401030106	12.1	6.8	6.2	5.1
100401030203	3.6	0	1.3	1.4
100401030204	1.6	0	1.6	1.6
100401030303	0.2	0	0.2	0.2
TOTAL	**52.6**	**10.8**	**23**	**29.5**

Canada Lynx

Direct and Indirect Effects

Motorized and non-motorized recreation has the potential to disturb lynx in the project area. Disturbance would be most detrimental during the breeding and kitten rearing season. At this time, the project area is considered unoccupied; therefore, disturbance is not anticipated.

The FEIS includes an analysis of the effects of the winter alternatives on snow compaction by looking at area open to snowmobiling and miles of roads and routes available by alternative. Each of the action alternatives reduces the area open to snowmobiling by Lynx Analysis Unit (LAU), and reduces, overall, the miles of roads and routes available to snowmobiling. There a several specific LAUs where the miles of roads and routes available to snowmobiling increases in order to reduce the area open to snowmobiling. This follows Objective HU O1 and Guideline HU G10 in the Northern Rockies Lynx Management Direction Record of Decision (USDA Forest Service 2007).

Table 4 shows the acres of land impacted by the summer Decision Alternative for new trail construction. There are no new roads proposed within any LAUs. Loss of 9.9 acres of habitat across 7 LAUs is a minor impact to lynx habitat. In three of the LAUs (LB1, LB13, and LB20) there may be a localized reduction in snowshoe hare habitat, depending on the existing habitat

type at the new trail construction site. Again, this is a minor habitat area and the loss of habitat will occur in a linear, six foot wide strip.

Table 4: Acres Impacted by Trail Constructed, Decision Alternative

LAU	LB1	LB4	LB8	LB9	LB13	LB14	LB20	**TOTAL**
acres	2.2	0.5	0.4	0.7	3.5	0.4	2.3	**9.9**

Cumulative Effects
Timber and fuel reduction activities in the project area have the potential to reduce available habitat for lynx and snowshoe hare. Standards and Guidelines in the Northern Rockies Lynx Management Direction, although not required, will be followed and will maintain habitat for lynx in this unoccupied habitat.

Sage Grouse
Direct and Indirect Effects
There are no known sage grouse leks within the project area, therefore there will be no disturbance to this species during the breeding season. There is habitat for this species, however, trail and road construction is not planned through sage habitat, and therefore there will be no change to habitat for sage grouse.

Cumulative Effects
There are no direct or indirect effects to sage grouse from any alternative, therefore there are no cumulative effects.

Bald Eagle
Direct and Indirect Effects
There are no nesting bald eagles within the project area, therefore there will be no disturbance to breeding bald eagles. Foraging eagles may use the project area, especially during the winter. A primary source of food found on the forest during winter months is carrion. Disturbance from motorized or non-motorized recreation could displace eagles from prey. Because the availability and location of carrion is unpredictable in relation to roads and trails this effect can not be quantified. The localized nature of recreation activities in comparison to the foraging area of bald eagles limit the degree of this impact. It is likely that eagles disturbed from a carcass will return when the disturbance is past.

None of the alternatives will result in changes to nesting habitat for eagles.

Cumulative Effects
There are no direct or indirect effects to bald eagle habitat, therefore there are no cumulative effects to bald eagle habitat. Any activities that result in increased energetic demands during winter, for example extreme cold weather or iced over rivers, will contribute to impacts associated with disturbance of winter foraging due to recreation activities.

Peregrine Falcon

Direct and Indirect Effects

Peregrine are susceptible to disturbance at the eyrie (nest site) both from above and below. Disturbance from below (rock climbers, boaters, etc.) is generally more of a concern, however common practice is to place a ½ mile closure area around the eyrie location to protect the birds from disturbance until the young have fledged. Road 311 is located approximately 0.3 miles from the eyrie in the existing condition and is closed from December 1 to May 15 for elk and deer wintering habitat. This does not protect the peregrine from disturbance during nesting under alternative 1. The action alternatives close the road to vehicles yearlong. Alternative 3 allows ATVs and motorcycles to use the trail during the nesting season. Alternatives 4 and 5 close the trail to ATVs and motorcycles from September 1 to June 30, which includes most of the nesting season. The Decision Alternative closes the trail to all motorized access. Non-motorized use is allowed on the trail year round by all alternatives. Non-motorized use is likely not to disturb nesting peregrine at 0.3 miles distant because the sound would not carry as far as motorized recreation.

There would be no loss of peregrine falcon habitat or prey habitat under any of the alternatives.

Cumulative Effects

This peregrine eyrie is located on the Smith River, which receives a large volume of float traffic each year. It is likely that the peregrine is habituated to the disturbance, due to the persistence of the eyrie over time, however the additional disturbance of road 311 adds to the existing disturbance of the river.

Flammulated Owl

Direct and Indirect Effects

Any flammulated owl in the project area could be disturbed by motorized or non-motorized recreation occurring in the area. As there are no known flammulated owls in the project area disturbance is not expected.

New trail and road construction under any alternative will not result in loss of flammulated owl habitat as old growth or mature forest will not be removed for these activities.

Cumulative Effects

There will be no cumulative effects to flammulated owls as there are no direct or indirect effects.

Burrowing Owl

Direct and Indirect Effects

Burrowing owl are not located within the project area, therefore there will be no disturbance to this species from any of the alternatives. There will be no changes to this species habitat from the proposed trail and road construction.

Cumulative Effects

There will be no direct or indirect effects to burrowing owls, therefore there will be no cumulative effects to this species from any of the alternatives.

Black-backed Woodpecker

Direct and Indirect Effects

Black-backed woodpeckers in the vicinity of trails or roads could be disturbed by traffic or recreational use of the trails. This could result in less time spent foraging, increased energy expenditure if birds exhibit defensive behavior near a nest, or nest abandonment in extreme cases. Black-backed woodpeckers are considered closely associated with burned areas. Trails in the Rugby and Middle Fork fires of 2007 could disturb black-backed woodpeckers that move into these fire areas. Since it is unknown if black-backed woodpeckers will move into these areas this effect is unknown at this time.

None of the alternatives will result in loss of habitat for this species.

Cumulative Effects

Fire suppression has resulted in loss of habitat for this species over time, and in recent years has resulted in large wildfires and a surplus of habitat in large blocks over much of Region 1. As this project will not change habitat it will not add to cumulative impacts of fire suppression.

General recreation activities (camping, fishing, woodcutting, etc.) can also lead to disturbance to this species. These activities are not concentrated, and the effect would be expected to be minor.

Townsend's Big-eared Bat

Direct and Indirect Effects

Townsend's big-eared bat roosts in caves, therefore the project will not alter roosting habitat for this species. The species forages over riparian areas. The removal of habitat under any of the action alternatives will not occur in riparian habitat, therefore prey will not be impacted.

Recreational activities will not result in disturbance to foraging Townsend's big-eared bats, as these species forage at night. It is unlikely that recreational activities will disturb roosting individuals, as they roost in caves.

Cumulative effects

There will be no cumulative effects to Townsend's big-eared bat, as there are no direct or indirect effects to this species.

Wolverine

Direct and Indirect Effects

Wolverine are present in the project area and may be disturbed by recreational activities. This is especially true of snowmobiling activities near mapped denning habitat. This was analyzed in the FEIS. Winter Alternative 3 provides the least amount of snowmobile activity within 1 km of mapped denning habitat. Winter Alternative 2 and the Winter Decision Alternative provide for less snowmobile activity within 1 km of mapped denning habitat than the existing condition.

Because wolverine is such a wide ranging species, the habitat impacts due to new trail construction under any alternative will be of no consequence to any wolverine in the area.

Cumulative Effects
Concentrated winter recreational use, such as occurs in play areas or ski areas, can also cause disturbance to wolverine. Showdown Ski Area is located within the project area. It is likely any wolverine avoid this area due to the concentrated use it receives.

Northern Bog Lemming
Direct and Indirect Effects
There are no known bog lemmings within the project area, therefore there will be no disturbance to this species from any of the alternatives. There will be no effect to this species habitat, as we avoid boggy, wet areas when constructing trails and roads.

Cumulative Effects
There are no known direct or indirect effects to this species from any alternative, therefore there are no cumulative effects.

Westslope Cutthroat Trout
Direct and Indirect Effects
Travel management affects WCT directly and indirectly because roads and trails can deliver sediment to streams, which degrades habitat quality. When roads and trails cross streams, they inevitably alter natural channel morphology or disrupt stream stability. The transportation system can also reduce security for WCT populations, resulting in more fishing pressure and risk of disease or unwanted species introductions. Potential habitat impacts were evaluated by considering length of roads and trails within 100 feet of WCT streams and number of stream crossings for each alternative. Effects from known (surveyed or observed) problem roads or trails were also considered. This analysis is described fully in the FEIS. Winter travel management would have only minor effects on aquatic habitats and is therefore not believed to have significant effects on WCT.

Cumulative Effects
Effects from recreation, grazing, mining, logging and non-native fish are acknowledged and listed for each WCT watershed in the FEIS. These past, present and reasonably foreseeable actions can tip the balance of viability for WCT populations in the project area. In fact, hybridization with and competition from non-native trout may ultimately determine viability for some WCT populations, regardless of impacts from roads and trails or other human actions that affect habitat conditions. The complexity of these interactions and lack of quantitative information on magnitude of effect makes analysis very difficult. Ultimately, professional judgment on risk levels must be used to make a determination.

Western Toad
Direct and Indirect Effects
Although survey information is limited, there is no evidence that travel management is affecting distribution or abundance of western toads in the project area. Motorized travel would need to be concentrated near a breeding site or across a migration corridor in order to cause enough mortality to potentially affect population viability of western toads. This is not believed to be the case. Instead, availability of suitable breeding ponds and seasonal precipitation to sustain water levels through larval development periods are likely the major factors affecting toad populations

in the project area. Other factors such as increased ultraviolet radiation and chytrid fungus disease may also be influencing western toad abundance in Montana, although no obviously sick or dying toads have been found in the project area. Winter travel management would have only minor effects on aquatic habitats and is therefore not believed to have significant effects on western toads which would be secure in hibernacula at that time.

Cumulative Effects
Because direct or indirect effects on western toads have not been detected for travel management in the project area, the potential for cumulative effects was determined to be insignificant.

Greater Short-horned Lizard
Direct and Indirect Effects
Any individuals of this species located near motorized trails or roads could be killed if hit by a vehicle, or could be disturbed by recreationists. If disturbed lizards could pay energetic costs in terms of thermoregulation or foraging. There are no known greater short-horned lizards in the project area, therefore, this effect is not anticipated.
As is the case for sage grouse, there will be no habitat loss for this species with habitat changes for new trail construction.

Cumulative Effects
There will be no cumulative effects as there are no direct or indirect effects for this species.

Compliance with Management Direction

The proposed project meets standards and guidelines for wildlife and fish as set forth in the Forest Service Manual and the Lewis and Clark LRMP of 1988, as amended.

DETERMINATIONS

Threatened/Endangered Species

The proposed project has no habitat for the mountain plover in or near the project area. There will be no direct, indirect or cumulative effects to grizzly bear, Canada lynx, or sage grouse, therefore it is my determination that the Little Belt, Castle, and North Half Crazy Mountain Travel Management Plan will not affect these species.

In the final rule for reintroduction of wolves to Yellowstone National Park and Central Idaho, published in the Federal Register on November 22, 1994, the USFWS concluded that the gray wolf reintroduction does not conflict with existing or anticipated federal actions (Federal Register vol. 59, No. 224, page 60252). Specifically, the USFWS stated, "…there are no conflicts envisioned with any current of anticipated management actions of the Forest Service…" Therefore, implementation of any of the alternatives is not likely to jeopardize the continued existence of the gray wolf in the Greater Yellowstone Ecosystem.

Sensitive Species

The proposed project has no habitat for the harlequin duck, fisher, or northern leopard frog in or near the project area. There will be no direct, indirect or cumulative effects to bald eagle, flammulated owl, burrowing owl, Townsend's big-eared bat, northern bog lemming, or greater short-horned lizard; therefore, it is my determination that the Little Belt, Castle, and North Half Crazy Mountain Travel Management Plan will have no impact on these species.

The project may cause disturbance to peregrine falcon, black-backed woodpecker, or wolverine. For these reasons, it is my determination that the Little Belt, Castle, and North Half Crazy Mountain Travel Management Plan may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species for all alternatives for black-backed woodpecker and wolverine, and for Alternatives 1, 3, 4, and 5 for peregrine falcon. Because it closes road 311 to motorized traffic, it is my determination that the Summer Decision Alternative has No Impact to peregrine falcon.

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