

ISSUE 18: ROADLESS AREAS

Changes from the Draft to the Final EIS

The roadless effects analysis was updated to reflect new table values for Alternative 7-M. A clarifying section relative to a proposed new snowmobile route in the Taylor Fork TPA was added. Additional background information about historic snowmobile use in Cabin Creek was added. The cumulative effects discussion was expanded. A discussion relative to the effects of new programmatic direction articulated in the FEIS was added. A discussion about travel plan effects to the wilderness potential of the Cowboys Heaven area in the Cherry Creek Travel Planning Area was added.

Introduction

Travel Plan revision proposals would make changes to how recreationists use certain roads and trails. Some facilities would have to be physically changed to accommodate a different use (for example, a single-track trail currently being used by motorcycles may be converted to a double-track trail dedicated to ATV and motorcycle use). Changes in types of use may have an effect on certain characteristics of roadless lands on the Gallatin Forest. The public has identified a concern over motorized recreation within roadless lands, and the potential that motorized activities like snowmobiling or riding ATVs have to diminish roadless character, and possibly the future designation of some roadless areas as Wilderness. Degradation of roadless land values regardless of their suitability for future designation as Wilderness, have also been identified as a concern relative to changing recreational uses.

Affected Environment

The 1.8 million-acre Gallatin National Forest has a large component of roadless and unroaded land, including designated Wilderness and a Wilderness Study Area. An inventory of roadless lands has been maintained on the Forest since the early 1970s. The current inventory was displayed most recently in the 2001 Roadless Final Rule (36 CFR 294, USDA 2001) and may also be found in Appendix C of the Gallatin Forest Plan (USDA 1987). Table 3.18. 1 summarizes the roadless inventory acres, designated Wilderness, Wilderness Study Areas, and roaded lands on the Forest. For a map of the current roadless inventory of the Forest, see Figure 3.18.1.

The original inventory of roadless lands took place in the early 1970s during the RARE (Roadless Area Evaluation and Review) I evaluations, and then again in the late 1970s during RARE II. The inventory displayed in the current Forest Plan EIS, Appendix C, is an output of the RARE II inventory. Twelve separate Inventoried Roadless Areas (IRAs), located in all the mountain ranges on the Forest, were identified through this process. Complete descriptions of these areas can be found in Appendix C of the Forest Plan FEIS (USDA 1987).

Table 3.18. 1 Land base of the Gallatin National Forest (Forest Service land only).

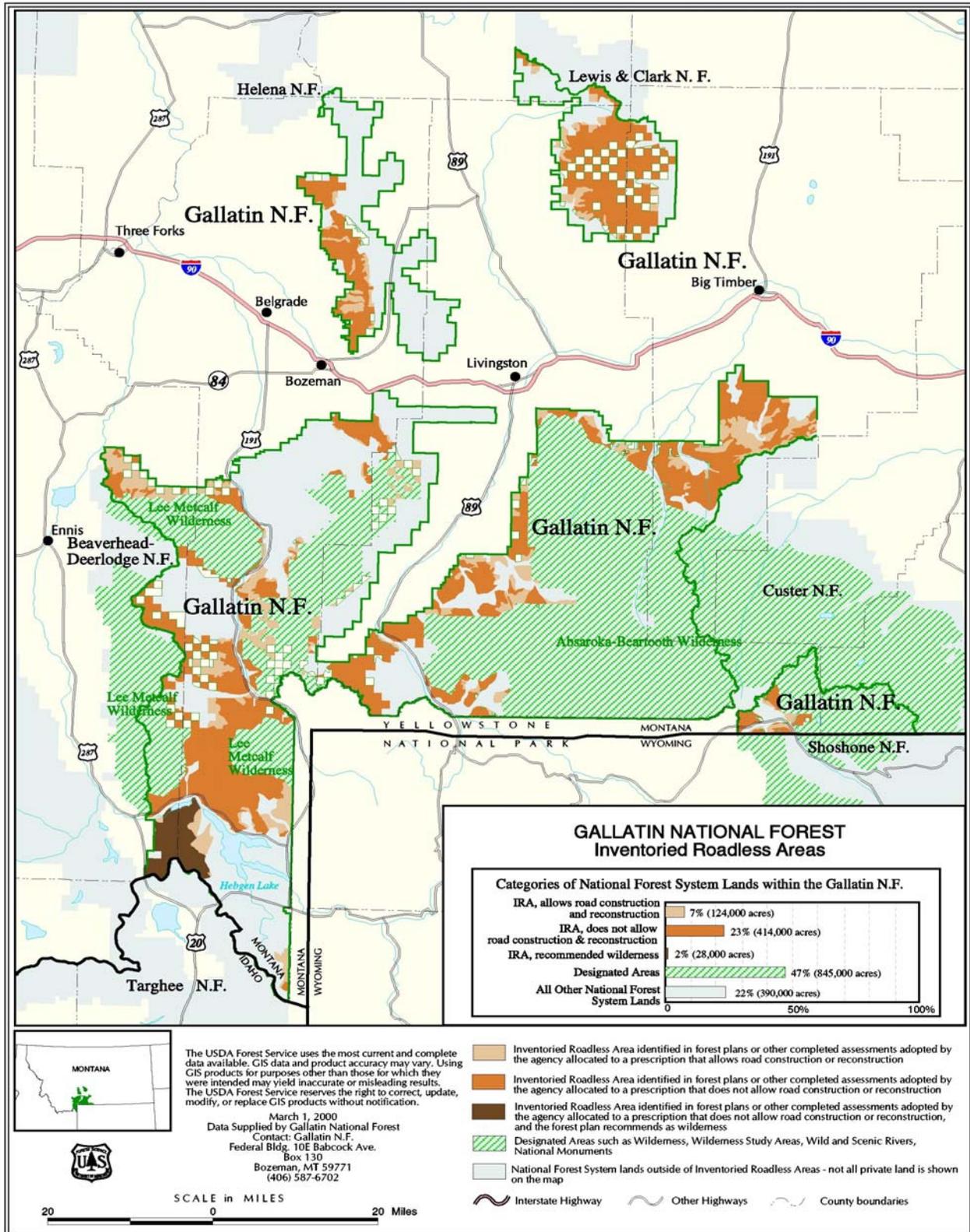
Land Type	Approximate Acres	Percent
<u>Wilderness:</u>		
Absaroka Beartooth	575,771	
Lee Metcalf	<u>140,494</u>	
Total	716,265	40.0
<u>Inventoried Roadless:</u>		
Wilderness Study Areas	155,000	
Recommended for Wilderness	28,000	
Not Recommended for Wilderness	<u>521,000</u>	
Total	704,000	38.5
Roaded Lands	387,894	21.5
Total Acres	1,808,259	100.0

The total inventoried roadless acres (Table 3.18. 1) (704,000 acres) is the acreage shown in the Roadless Final Rule EIS (USDA, 2001). Discrepancies in total roadless acreage shown in the Forest Plan on page II-57 of the FEIS (637,659 acres) and the 704,000-acre figure displayed in the Roadless Final Rule are primarily due to mapping conventions (the old hand drawn maps vs. GIS mapping used for the Final Rule), and private lands acquired within roadless areas since 1987. The inventory lines themselves have not been changed since the Forest Plan was published.

In the 17 years since the Forest Plan was approved, the Gallatin Forest has acquired approximately 178,000 acres of land through various exchanges, purchases and donations (B. Dennee, USDA Forest Service, personal communication). Some of these acquired lands retain their roadless characteristics, but may fall outside of old IRAs. During Forest Plan revision, the inventory of Forest roadless lands will be updated. Forest Plan revision is scheduled to begin in 2009. During revision, some lands currently shown as inventoried roadless, which have been roaded since the 1987 Forest Plan, will be removed from the inventory, and acquired roadless lands will be added to the inventory. The National Forest Management Act (NFMA) also mandates that roadless lands be reevaluated during revision, to determine their suitability for designation as Wilderness.

All Forest lands that retain their roadless characteristics and are of sufficient size to be considered for future Wilderness designation (regardless of whether they fall within an old inventoried roadless area [IRA] boundary or not), will be evaluated in this Travel Plan analysis. An example of this would be the South Cottonwood drainage just south of Bozeman in the Gallatin Range. This area is considered a “vestpocket” Wilderness by many locals, but was not included in the original roadless inventory due to mixed ownership. Today, most of the drainage is public land and still retains its roadless qualities. Other areas on the Forest where acquired lands retain their roadless character, but are not included in the current inventory, include lands around the OTO Ranch in Cedar Creek, a fringe of land adjacent to the Gallatin Roadless Unit in upper Storm Castle, Swan and Moose Creeks, several sections of land just north of Buck Ridge and some portions of the Sixmile drainage.

Figure 3.18.1 Roadless Lands on the Gallatin National Forest as published in the 2001 Roadless Final Rule.



During the analysis for the current Gallatin Forest Plan, all inventoried roadless areas were reviewed and alternatives considered whether to recommend these areas for designation as Wilderness. This review was originally mandated by the RARE I and then RARE II processes, and modified yet again by direction contained in the NFMA and subsequent planning regulations tied to it (36 CFR 219.17). The results of that roadless review can be found in the Gallatin Forest Plan FEIS Appendix C (USDA 1987). The preferred alternative for the Forest Plan recommended an additional 28,000 acres of roadless land to be designated as Wilderness. These areas are located in the Lionhead area of the Henrys Mountains (Lionhead Unit 1-963), and just south of Cooke City adjacent to the North Absaroka Wilderness (Reef Unit 1-914). None of these recommended Wilderness additions have yet been designated as Wilderness by Congress and are managed under the MA-4 (Wilderness, and recommended wilderness) prescription in the Forest Plan. Of the 637,659 acres of roadless evaluated in the Forest Plan, approximately 124,000 acres were allocated management prescriptions that allowed road construction or other land managing activities that could alter roadless character. Approximately 552,000 acres were allocated to management prescriptions that do not allow road construction (USDA 2000). Between 1987 (when the Forest Plan was signed) and the late 1990s, approximately 30,000 acres of roadless lands have had roads constructed or timber harvested on them (USDA 2001b).

The Lee Metcalf Wilderness Act (PL 98-140) included “soft release” language, which dropped the portion of the Madison IRA (1-549) that was not designated as Wilderness from consideration as such through the Forest planning process in the late 1980s. As a result, the evaluation for this IRA was not included in Appendix C of the Gallatin Forest Plan. This analysis will include the Madison IRA in the aggregate of roadless lands evaluated for effects from potential travel management decisions.

The large acreage of roadless public lands in the Greater Yellowstone Area, including those on the Gallatin Forest, hold special values for many individuals. This large expanse of wild land is home to a complete complement of large carnivores, pure water, native fisheries, several threatened or endangered species, outstanding primitive recreation opportunities, exemplary scenery and numerous unique geologic, historic and cultural features. This combination of attributes and empty spaces create a rare and unique setting in a world where ever-increasing urbanization, population increases and modification of the natural environment are more the norm. Many people have expressed their feeling that maintaining the integrity of these wild lands is important to them, even if they may never have an opportunity to experience them first hand.

Direct and Indirect Effects

Analysis Methodology

A spatial analysis using GIS tools was used to compare the seven alternatives within inventoried roadless lands and within those areas retaining their roadless character that are not technically part of the inventory. Where allocations of recreation use would necessitate physically changing the road or trail to accommodate it, the effects of the change are documented in the analysis by mountain range.

If the selected alternative would require physically changing the facility (road or trail) to accommodate the new use, and would require surface disturbing activities to make that change, site specific National Environmental Policy Act (NEPA) analysis appropriate for the activity proposed would take place prior to implementation of the physical change. Direct effects to roadless characteristics for a specific project would be disclosed during that subsequent analysis.

The following seven Wilderness attributes are the basis for evaluating the effects of the alternatives, using proximity and qualitative descriptions. In accordance with the NFMA, these are the characteristics used to define wilderness attributes, and are the basis for evaluating actions in roadless, which could affect future Wilderness designation. These attributes are also referenced and defined in Forest Service Handbook (FSH) 1920. They are:

- 1) Natural Integrity: The extent to which long-term ecological processes are intact and operating.
- 2) Apparent Naturalness: The environment looks natural to most people.
- 3) Remoteness/primitive and unconfined recreation: A perceived condition of being secluded, inaccessible, and out of the way.
- 4) Solitude: A personal, subjective value defined as the isolation from the sights, sounds, presence of others, and the development of man.
- 5) Special Features: Unique geological, biological, ecological, and cultural or scenic features.
- 6) Manageability and Boundaries: The ability to manage a roadless area to meet the minimum size criteria for Wilderness (5,000 acres).
- 7) Special Places or Values: Less-tangible attributes of the area that are special or valuable to stakeholders.

In addition to the characteristics typically used for roadless effects analysis mandated by NFMA, roadless characteristics were identified in the 2001 Roadless Final Rule, which may be independent of Wilderness characteristics. The attributes defined in the 2001 Roadless Final Rule include:

- 1) High quality or undisturbed soil.
- 2) Sources of public drinking water.
- 3) Diversity of plant and animal communities.
- 4) Habitat for threatened and endangered species.
- 5) Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation.
- 6) Reference landscapes.
- 7) Natural-appearing landscapes with high scenic quality.
- 8) Traditional cultural properties and sacred sites.

See the Federal Register Vol. 66, No. 9, Jan. 12, 2001 for expanded definitions of these characteristics.

Table 3.18. 2 provides a crosswalk between the roadless characteristics defined in 36 CFR 294 and the Wilderness attributes described for Forest planning in FSH 1920. Many of the characteristics defined in the Roadless Final Rule are discussed or analyzed under other resource issues and will be referenced throughout this analysis.

Most of the roadless character features described in the 2001 Roadless Final Rule pertain to specific resource issues that are analyzed elsewhere in this document (see Issue 20: Watershed Management, Issue 9: General Wildlife and Issue 19: Soils) and will not be reiterated in this section.

Table 3.18. 2 Roadless characteristics and Wilderness attributes.

Wilderness Attributes	Roadless Characteristics
<p><u>Natural Integrity:</u> The extent to which long-term ecological processes are intact and operating.</p>	<p>High quality or undisturbed soil, water and air. Sources of public drinking water. Diversity of plant and animal communities. Habitat for threatened, endangered, candidate, proposed and sensitive species dependent on large areas. Reference landscapes.</p>
<p><u>Apparent Naturalness:</u> The environment looks natural to most people.</p>	<p>Natural-appearing landscapes with high scenic quality.</p>
<p><u>Remoteness:</u> A perceived condition of being secluded, inaccessible, and out of the way. <u>Solitude:</u> A personal, subjective value defined as the isolation from the sights, sounds, and presence of others and the development of man.</p>	<p>Primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation.</p>
<p><u>Special Features:</u> Unique geological, biological, ecological, and cultural or scenic features. <u>Special Places or Values:</u> Less-tangible attributes of the area that are special or valuable to stakeholders.</p>	<p>Other locally identified unique characteristics, traditional cultural properties and sacred sites.</p>
<p><u>Manageability and Boundaries:</u> Ability to manage a roadless area to meet the minimum size criteria for Wilderness (5,000 acres).</p>	<p>No criteria.</p>

Inventoried Roadless Areas

Table 3.18.5 displays the miles of existing road (by category) proposed in each alternative that are within roadless lands. In general, road configuration does not change substantially between alternatives. Travel Plan proposals do not include building a network of new roads, but they change the management strategy on some existing roads. See Issue 11: Transport System Implementability for a more complete discussion of road management options.

The apparent disparity between the total number of miles of road displayed in Table 3.18.5 and the general concept of roadless is a result of several factors. The roadless inventory used for this analysis was originally created during Forest Planning in the mid-1980s. This inventory was digitized and transformed into an electronic map used in GIS analysis in the late 1990s, with no changes or corrections to the original lines. The original maps were done at the fairly gross scale of ½-inch to 1 mile, and were not very accurate. When digitized for GIS mapping, differences occurred. Therefore, using the original map units in a modern mapping world, roads now appear in roadless, when in reality the roads were there all along.

The second situation that contributes to the 209 miles of open and closed roads that occur within the Forest Plan roadless inventory is that some of those acres have indeed been roaded and harvested in the 17 years since the Forest Plan was signed. Approximately 30,000 acres of Forest roadless acres displayed in this inventory have been roaded since 1987 (USDA 2001b). Most of these roads and

associated timber harvests are located in the Madison Range (Taylor Fork/Buck Creek area) and in the Absaroka Range (Mill Creek and Deer Creeks areas). The Forest Plan allocated approximately 124,000 acres of the identified roadless lands to future road building and timber harvest activities. Additionally, some of the lands recently acquired through extensive land acquisition programs on the Forest in the last decade were within inventoried roadless areas, yet were roaded by the private landowners prior to becoming public land.

The third situation has to do with the definition of a road in terms of roadless lands. Forest Service Handbook 1909.12 provides direction on when to count lesser-developed roads as an improvement that would disqualify an area from roadless consideration. Roads generally must have engineered improvements and be passable by standard passenger car type vehicles to be counted as a road that would exclude the area from the roadless inventory. Some of the roads displayed in Table 3.18.5 (primarily those labeled administrative or project, and in some cases backcountry roads) would not be counted as a road in terms of the roadless inventory. The general concept is that if the road could easily be restored to a “natural condition” by removal of traffic and some rehabilitation work, then it may be included within the roadless inventory. Not all individual administrative or project roads were analyzed to determine which category they would fall into for this analysis, therefore they are all displayed below in Table 3.18.5. The data is grouped by mountain range for this analysis.

Lastly, some of the disparity noted between alternatives (e.g., total miles of open road to public use in roadless varies by less than three miles among alternatives) is a result of minor artificial discrepancies in the GIS analysis generated by the models. There are no proposals to actually construct additional miles of road in inventoried roadless areas in any proposed alternative.

In that Travel Plan proposals do not include building new roads, it was not deemed necessary to revisit the accuracy of mapping and the roadless inventory for this analysis. The roadless inventory will be reviewed and updated through the Forest Plan revision process.

Table 3.18.5 displays the approximate miles of road in roadless by category and mountain range for each alternative. Table 3.18.6 displays summer motorized trail uses on both the trail system proper and on project or administrative roads within roadless areas. Table 3.18.7 displays winter recreation opportunities and acres of snowmobile closure in the current roadless inventory.

Effects Common to Alternatives 2 through 7-M

Potential physical effects to roadless character from travel planning decisions are primarily associated with trail management decisions. Alternatives that would change the function of single-track trails to double-track (i.e., hiking/stock/motorcycle trails to ATV trails) would have the most pronounced potential effect on natural integrity and apparent naturalness of any proposed action as they would disturb more trail surface area. Again, this decision only addresses the appropriateness of the type of use on a given route. Should physical changes need to be made to the route to accommodate a new use, site-specific analysis in accordance with NEPA would be completed before implementation, to examine the site specific effects.

As no new roads are proposed in any alternatives within roadless areas, this discussion focuses on the potential effects to trails and areas from dispersed recreation use (snowmobiling, biking, etc.), and the conversion of single-track trails to double-track ATV trails.

Trails that function primarily as pack and saddle, hiking, biking or motorcycle trails are typically designed, constructed and maintained to the pack and saddle standard width of 18-24 inches of tread and are fairly unobtrusive on the ground. Trails designed specifically for ATVs vary in tread width from 4-5 feet, and are a more obvious, constructed facility on the ground, especially where they cross side slopes requiring larger areas of cut and fill. See Forest Service Handbook 2309.18-90-1 for descriptions of trail construction standards. ATV trails create a much larger footprint, which would be more difficult to rehabilitate and return to a less obtrusive facility should the area be designated as Wilderness at some point in the future. ATV trails would not, however, be considered roads as per the Forest Service Handbook 1909.12 guidance used to review roadless eligibility. Areas that contain ATV trails that still otherwise retain their roadless characteristics (e.g., they haven't been roaded or logged) would continue to be included in the roadless inventory, and retain their potential for designation as Wilderness in the future. Hiking, mountain biking, stock and motorcycle use of single-track trails typically do not warrant any major physical changes of trails from the pack and saddle standard.

Conversion of single-track trails in roadless lands to ATV trails would have a tangible effect on apparent naturalness, natural integrity and sense of remoteness, by virtue of the larger area of ground disturbance associated with the trail. Also, see the narratives describing the effects of ATV trails in Issue 20: Soils, Issue 21: Watershed Management, Issue 9: General Wildlife and Issue 7: Fisheries.

The public has identified a concern regarding the precedent that establishing motorized trail systems has on a roadless area's potential future designation as Wilderness. Congress has the ultimate authority to designate areas as Wilderness, and has done so in areas where motorized uses were established before designation, as in the Boundary Waters Wilderness Area. Likewise, areas with established motorized use have been left out of designated Wilderness to provide a motorized recreation opportunity when viewed as a higher benefit to the people than Wilderness designation. An example on the Gallatin NF is the Cabin Creek Recreation and Wildlife Management Area, which was designated in the Lee Metcalf Wilderness Act as a special management area where motorized use is permissible, but not designated as Wilderness. Many Wilderness areas have been designated that include old roads, timber harvest, mining, stock driveways, etc.

Special areas, values or features are a generic category of roadless attributes that may contribute to roadless character. Examples of specific places like this on the Forest within roadless areas include the Petrified Forest, Cabin Creek Wildlife Management Area, Earthquake Lake Special Management Area, Hyalite/Porcupine-Buffalo Horn Wilderness Study Area and culturally important landscapes to the Crow Indians in the Crazy Mountains. The public has commented that motorized recreation activities within these special areas could affect key attributes of the areas. One concern specifically noted was the increased opportunity that recreationists using ATVs have to collect large specimens of petrified wood proximate to ATV trails, depleting a non-renewable resource. Isolated incidents of this have been noted in the past. Alternatives 1 and 2 would allow ATVs within a small portion of the Petrified Forest, Alternatives 3 through 7-M would not allow ATVs in the Petrified Forest, Alternative 6 would prohibit all motorized travel within the Petrified Forest. Cross-country travel would be permissible within the Rock Creek portion of the area under Alternative 1, which would allow access to more specimens than if travel were restricted to

designated routes. Minor effects from Travel Plan proposals to special areas could include fewer opportunities for solitude and quiet along motorized trails, and changes to natural integrity and apparent naturalness as described above if single-track trails are converted to double-tracks.

No recent bills have been introduced into Congress to designate additional Wilderness in Montana. There were several bills that had fairly wide support in the early 1990s, though none became law. Roadless portions of the Forest that were included in several different bills introduced in the early 1990s (H.R. 2473, for example) include: several additions to the Absaroka Beartooth (Dexter Point, Mt. Rae, Tie Creek), an addition to the Lee Metcalf in the Cowboy Heaven area (about 20,000 acres), the Earthquake Lake Wilderness (the Lionhead area recommended wilderness addition), an addition to the North Absaroka Wilderness near Republic Mountain, and Wilderness Study Areas designated in the Crazies and north of Yellowstone Park in the Sawtooth area. No alternatives except Alternative 1 identify ATV trails within any of these past-proposed Wilderness additions, though there are portions of the areas proposed open to snowmobiles and some motorcycle routes.

Several people commented on the DEIS that alternatives that would allow motorized use in the Cherry Creek Area, north of the Spanish Peaks Unit of the Lee Metcalf Wilderness would affect the areas potential to be designated as wilderness at some point in the future by condoning motorized use there. This area often referred to as Cowboy's Heaven, was included as a proposed addition to the Lee Metcalf Wilderness in every wilderness bill to be introduced to Congress in the 1990s. The Beaverhead Deerlodge NF has identified the portion of Cowboy's Heaven immediately west of the Gallatin NF as a recommended addition to wilderness in their Draft Forest Plan Revision. The Gallatin NF portion of Cowboy's Heaven (part of the Madison IRA) was not recommended for wilderness in the 1987 Forest Plan. The Lee Metcalf Wilderness Bill provided "soft release" language for the portions of the Madison IRA that were not designated as Wilderness in 1983. Alternatives 1-3, and 7-M would allow motorcycles on trail #401 within this area. Alternatives 4-6 would manage all the trails in Cherry Creek as non-motorized. Alternatives 1 and 2 would allow snowmobiles in this area, and Alternatives 3 through 7-M would prohibit all snowmobiling within the area.

Recreational livestock use, hiking and mountain biking would not be restricted to designated routes in roadless areas in any alternative. Certain areas of the Forest, especially those that receive heavy stock traffic, have an extensive network of user-created unauthorized routes. The continued use of these routes by foot, stock or bicyclers would cause some minor negative effects to natural integrity and apparent naturalness, where trails might erode, and weeds become established.

The proposed Travel Plan, under Alternatives 2 through 7-M, includes a goal and objective to acquire access across private lands to reach the National Forest boundary (Forest-wide Goal B, Objectives B-1 through B-3). In several of these instances, access would be provided to roadless portions of the Forest that do not currently have public access. While this improves the public's ability to enjoy public land, it also would decrease the sense of remoteness in those locations. Approximately 18 of the proposed new access points would provide access to roadless lands.

None of the alternatives would affect roadless boundaries, nor the future manageability of these areas as potential Wilderness based on boundary or minimum size criteria.

Alternative 1

Alternative 1 would allow ATVs on approximately 420 miles of trail within roadless areas. This represents the miles of trail on the 1999 Travel Map that were not restricted to motorized vehicles. Only about 158 miles of those trails are currently useable by ATVs (as represented by Alternative 2). Most of these trails would need some heavy maintenance or reconstruction to meet minimum engineering standards for ATV routes. Unless that work is done, ATVs would likely only use a small fraction of the total trail miles available. In this alternative, cross-country travel by motorized vehicles would be permissible where not otherwise restricted by special order closure on the Forest. Motorized users would continue to pioneer new trails along easier routes to access favored destinations. ATV use of trails not currently suited for that use, and creation of new routes would have a tangible effect to natural integrity and apparent naturalness. Trails would be widened resulting in increased erosion, more soil and vegetation disturbed, seedbeds for weeds provided, etc. All of these changes would have a negative effect on natural integrity and apparent naturalness. See the other resource issues for specific effects analysis. Establishing motorized use on trails that were traditionally used only by stock and hikers would affect opportunities for solitude in some areas.

Snowmobiles would be allowed in 83% of the roadless areas of the Forest, with approximately 29 miles of groomed trail and 35 miles of marked trails in Alternative 1. Snowmobiles do not currently access all areas that are unrestricted, primarily due to physical constraints (steep, timbered hillsides) or lack of consistent snow cover. It is likely that snowmobile use would expand into some lightly used portions of the Forest under this alternative. The result would be fewer opportunities for solitude, and some effect to natural integrity, primarily due to effects on wintering wildlife (see the Wildlife Issues).

Alternatives 2 through 7-M

Alternatives 2 through 7-M would all manage significantly fewer miles of trail for ATVs within roadless areas than Alternative 1 (see Table 3.18. 6). Of the routes managed for ATVs, a few of them would be conversions of existing single-track trails to double-track trails for ATVs. Table 3.18.3 provides an approximation of how many miles of trail would be converted from a single-track to a double-track and where it would occur.

Table 3.18.3 Approximate miles of single-track trails converted to ATV trails in roadless areas, by alternative.

Range	Area	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Henry's Mountains	Watkins Creek	3	3	0	0	0
Absaroka Mountains	Deer Creeks	3	14	0	0	0

Several alternatives would construct a few miles of new ATV trail in roadless areas (see Table 3.18.6). New construction would range from about 9 miles in Alternative 3 to none in Alternatives 2 and 6. In Alternative 7-M the new construction would occur in three main locations: about five miles of new loop trail on Buck Ridge, ½ mile in Mill Creek to connect the Wicked Creek ATV Loop, and about a mile off the end of the West Bridger road connecting to lower Deer Creek. This new construction would have an effect on natural integrity and apparent naturalness by disturbing a larger area of soil and vegetation. See the other resource sections for specific discussion of these

issues. Opportunities for solitude would be reduced in these previously trail-less areas as motorized use becomes established.

Table 3.18. 7 summarizes the miles of winter trails, and area restrictions to snowmobiles for all alternatives in roadless. Alternatives 1 and 2 would allow the most roadless area to be used by snowmobiles, Alternative 6 would be the most restrictive. Miles of groomed snowmobile trail within roadless range from about 29 miles currently to 40 miles in Alternative 3 (the increase takes place mostly in the Madison Range and the Bridgers). Miles of marked snowmobile trails range from 35 miles currently to 57 miles in Alternative 3. The primary effects to roadless characteristics in alternatives that have more open snowmobile areas and more groomed or marked trails are effects to natural integrity, primarily relating to stresses caused to wintering wildlife (see the Wildlife Issues), and reduced opportunities for solitude and a sense of remoteness. Marked or groomed trails are likely to attract more users than dispersed backcountry travel, increasing chances for encountering others while recreating, reducing opportunities for solitude.

Alternatives 3 and 7-M propose to relocate a portion of the Big Sky Snowmobile Trail in the Wapiti drainage to start instead at the Sage Creek Trailhead along Highway 191. The new route would reconnect with the existing groomed trail in section 20 along the Oil Well Road. This new route would follow the Slide Creek Trail #71 for the first approximately 1.5 miles, then would follow a new route to its junction with the Oil Well Road – Trail #68. This trail would be managed as a groomed route. In order to accommodate the groomer, isolated trail reconstruction on the first 1.5 miles would occur, and some new construction in areas where the trail crosses steep side slopes would be necessary to safely accommodate the groomer. Trail clearing would be wider than typical clearing for foot and horse traffic on Trail #71. Trail clearing, and approximately ½ mile of tread work on steep side slopes in several locations along the new snowmobile route would have a negative effect on apparent naturalness at least in the short term until cuts and fills revegetated and softened. Relocation of this trail may affect some recreationists' opportunities for solitude and sense of remoteness in the lower reaches of the Slide Creek Trail, and along the new snowmobile route.

Table 3.18. 7 also displays differences in the miles of marked and groomed cross-country ski trails. The primary effect to roadless characteristics by marking or grooming ski trails would be minor effects to natural integrity, primarily relating to stresses caused to wintering wildlife (see the Wildlife Issues), and reduced opportunities for solitude. Marked or groomed ski trails are likely to attract more users than dispersed backcountry travel, which would increase chances of encountering others while recreating and reduce opportunities for solitude.

Seasonal restrictions are proposed for motorized uses under all alternatives, and for mountain bikes and stock on some trails in the spring under Alternatives 2 through 7-M. Typical spring closures to motorized uses, stock and mountain bikes begin April 1 and go to either May 15, June 1, June 15 or July 15. These restrictions are designed to protect damage to trails during the freeze/ thaw cycle, and to protect fragile areas during times when soils are saturated and plants are in a delicate phenological growth phase. Plants and soil are most vulnerable to impacts during spring when plants are relying on stored nutrients for growth and soils are water logged (Hendee et al. 1990). Seasonal closures would mitigate much of the early season damage to trails, minimizing heavy maintenance needs in some cases. Closures would facilitate keeping trails to a minimal footprint on the landscape, by minimizing tread creep, go-arounds, bog holes and wide muddy trails. Spring

closures are also designed to minimize recreationists' impacts on wildlife. Often in roadless areas, trails are the most obvious sign of man's presence. Using seasonal restrictions to minimize the visual impacts from wet, damaged trails and disturbed areas around trails during spring break up would maintain, and in some cases improve, apparent naturalness and natural integrity of the areas.

Overall, Alternatives 1 and 2 would manage the most miles of ATV trails in roadless areas. These alternatives would have the greatest negative effect on natural integrity and apparent naturalness. All other alternatives would manage fewer miles of ATV trails, and would better maintain natural integrity and apparent naturalness.

Table 3.18. 4 provides a subjective display of how each alternative affects principal roadless characteristics. This table is based on the aggregate mileage of ATV routes for each alternative, miles of motorcycle trails, open snowmobiling areas, miles of winter trails and seasonal restrictions on routes.

Table 3.18. 4 Subjective ranking of responsiveness to maintaining roadless character, by alternative.

(- - least responsive, - less responsive, + more responsive, ++ most responsive)

Roadless Characteristic	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Natural Integrity	--	--	-	--	+	++	+
Apparent Naturalness	--	--	-	--	+	++	+
Remoteness	--	-	-	-	+	++	+
Opportunities for Solitude	--	-	-	-	+	++	+
Special Areas	--	-	-	-	+	++	+

None of the alternatives would cause irreversible or irretrievable effects to roadless characteristics that would negate future consideration for Wilderness designation. Even the creation of ATV trails or other motorized uses within roadless areas would be a reversible decision. If the areas were designated Wilderness, motorized uses would be prohibited and wider ATV and snowmobile trails could be rehabilitated to a pack and saddle standard, the norm for Wilderness trails.

Table 3.18. 5 Summary of road miles in inventoried roadless, by mountain range, by alternative.

Road Category	Miles of Road (Rounded to nearest whole number)						
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Open Roads – Passenger Car							
Absaroka Beartooth Mountains	10.5	10.5	8.9	8.9	8.9	8.9	8.8
Bridger, Bangtail Ranges	0.7	0.7	0.0	0.0	0.0	0.0	0.0
Crazy Mountains	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Gallatin Range	0.7	0.7	0.8	0.8	0.8	0.8	0.8
Henry's Mountains, Hebgen Basin	0.6	0.6	0.7	0.7	0.7	0.7	0.6
Madison Range	5.6	5.6	4.5	4.5	3.2	4.5	4.9
Forest Total	19.2	19.2	16.0	16.0	14.7	16.0	16.2

Road Category	Miles of Road (Rounded to nearest whole number)						
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Open Roads – PFSR (Public Forest Service Roads)							
Absaroka Beartooth Mountains	0.0	0.0	2.4	2.4	2.4	2.4	2.3
Bridger, Bangtail Ranges	0.0	0.0	0.7	0.7	0.7	0.7	0.7
Crazy Mountains	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gallatin Range	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Henrys Mountains, Hebgen Basin	0.0	0.0	1.8	1.8	1.8	1.8	1.8
Madison Range	0.0	0.0	2.9	2.9	2.9	2.9	2.9
Forest Total	0.0	0.0	7.9	7.9	7.9	7.9	7.8
Open Roads– Backcountry							
Absaroka Beartooth Mountains	27.5	27.5	27.3	27.3	25.4	23.5	29.9
Bridger, Bangtail Ranges	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Crazy Mountains	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Gallatin Range	1.0	1.0	0.8	0.8	0.8	0.7	0.8
Henrys Mountains, Hebgen Basin	1.8	1.8	0.4	0.4	0.4	0.4	0.0
Madison Range	1.8	1.8	1.3	1.3	1.3	1.3	1.3
Forest Total	35.8	35.8	33.5	33.5	31.6	29.6	35.7
Total Open Roads on Forest	55.0	55.0	57.4	57.4	54.2	53.5	59.7

Table 3.18. 6 Summary of ATV and motorcycle routes, by mountain range, by alternative.

Road Use/Type	Miles of Road (Rounded to nearest whole number)						
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
ATV and Motorcycle on Open Roads							
Absaroka Beartooth Mountains	2.2	2.2	10.5	12.2	8.2	1.5	16.5
Bridger, Bangtail Ranges	0.0	0.0	1.2	1.2	1.2	1.2	1.2
Crazy Mountains	0.3	0.3	0.7	0.7	0.7	0.2	0.7
Gallatin Range	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Henrys Mountains, Hebgen Basin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madison Range	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Forest Total	2.5	2.5	12.4	14.1	10.1	2.9	18.4
ATV and Motorcycle on Administrative and Closed Roads							
Absaroka Beartooth Mountains	3.1	3.1	11.2	7.6	2.6	1.2	6.6
Bridger, Bangtail Ranges	1.3	1.3	5.6	5.6	5.6	5.5	6.8
Crazy Mountains	4.9	4.5	5.4	0.4	0.2	0.2	0.0
Gallatin Range	1.7	1.7	0.0	0.0	1.7	0.0	1.5
Henrys Mountains, Hebgen Basin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madison Range	1.9	1.9	0.1	0.1	0.1	0.0	0.2
Forest Total	12.9	12.5	22.3	13.7	10.2	6.9	13.6
Total ATV and Motorcycle on Roads	15.4	15.0	34.7	27.8	20.3	9.8	32

Road Use/Type	Miles of Road (Rounded to nearest whole number)						
ATV and Motorcycles on Existing Trails	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Absaroka Beartooth Mountains	95.4	35.9	7.6	26.0	4.4	0.0	7.3
Bridger, Bangtail Ranges	47.7	9.5	1.7	1.7	0.0	0.0	2.7
Crazy Mountains	36.8	21.1	15.6	11.1	9.7	0.0	2.9
Gallatin Range	121.4	17.4	7.8	7.5	0.1	0.1	3.4
Henrys Mountains, Hebgen Basin	16.2	8.2	9.3	14.9	2.8	0.0	2.8
Madison Range	102.4	65.8	36.4	34.8	16.5	0.0	22.0
Forest Total	419.9	157.9	78.4	96.0	33.5	0.1	41.1
ATV and Motorcycles on New Trails	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Absaroka Beartooth Mountains	0.0	0.0	1.8	2.2	0.0	0.0	1.3
Bridger, Bangtail Ranges	0.0	0.0	0.1	0.1	0.0	0.0	0.1
Crazy Mountains	0.0	0.0	3.6	0.1	0.1	0.0	1.0
Gallatin Range	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Henrys Mountains, Hebgen Basin	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Madison Range	0.0	0.0	2.9	2.9	2.9	0.0	2.9
Forest Total	0.0	0.0	8.7	5.3	3.0	0.0	5.3
Total ATV and Motorcycle on Trails	419.9	157.9	87.1	101.3	36.5	0.1	46.4
Motorcycles Only on Open and Closed Roads	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Forest Total	0.1	0.5	7.7	3.2	1.9	0.0	10.3
Motorcycles Only on Existing Trails	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Absaroka Beartooth Mountains	0.0	63.5	49.7	0.0	0.0	0.0	48.2
Bridger, Bangtail Ranges	0.0	38.2	31.6	8.0	1.7	0.0	19.0
Crazy Mountains	0.0	15.7	17.0	7.7	0.0	0.0	11.3
Gallatin Range	41.9	145.7	123.4	93.4	57.7	0.0	73
Henrys Mountains, Hebgen Basin	3.6	11.6	6.3	0.0	0.0	0.0	0.0
Madison Range	5.8	26.0	56.5	42.2	54.1	0.0	49.6
Forest Total	51.3	300.7	284.5	151.3	113.5	0.0	201.1
Motorcycles Only on New Trails	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Absaroka Beartooth Mountains	0.0	0.0	0.0	0.0	0.8	0.0	0.7
Bridger, Bangtail Ranges	0.0	0.0	7.4	1.6	1.6	0.0	1.6
Crazy Mountains	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gallatin Range	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Henrys Mountains, Hebgen Basin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madison Range	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Forest Total	0.0	0.0	7.4	1.6	2.4	0.0	2.3
Total Motorcycles Only on New and Existing Trails	51.3	300.7	291.9	152.9	115.9	0.0	203.4

Table 3.18. 7 Winter use miles in roadless areas, by mountain range, by alternative.

Activity or Use	Miles (Rounded to nearest whole number)						
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Plowed Road							
Absaroka Beartooth Mountains	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bridger, Bangtail Ranges	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crazy Mountains	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Gallatin Range	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Henry's Mountains, Hebgen Basin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madison Range	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Forest Total	2.1	2.1	2.2	2.2	2.2	2.2	2.1
Snowmobile Trail - Groomed							
Absaroka Beartooth Mountains	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Bridger, Bangtail Ranges	0.0	5.8	5.8	5.8	5.8	0.3	5.8
Crazy Mountains	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Gallatin Range	0.7	0.7	0.7	0.7	0.4	0.4	0.4
Henry's Mountains, Hebgen Basin	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Madison Range	18.2	18.2	23.4	18.2	18.2	18.2	22
Forest Total	28.6	34.4	39.6	34.4	34.1	28.6	37.9
Snowmobile Trail - Marked							
Absaroka Beartooth Mountains	2.8	2.8	2.8	2.8	4.0	2.8	0.0
Bridger, Bangtail Ranges	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crazy Mountains	2.8	2.8	5.6	5.6	0.0	0.9	3.5
Gallatin Range	14.5	14.5	24.3	23.0	19.2	0.0	24.7
Henry's Mountains, Hebgen Basin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madison Range	15.3	15.3	24.8	15.3	15.3	15.1	15.2
Forest Total	35.4	35.4	57.5	46.7	38.5	18.8	43.4
Cross-Country Skiing Groomed Trail							
Absaroka Beartooth Mountains	1.4	1.4	7.0	7.4	1.8	1.8	1.8
Bridger, Bangtail Ranges	0.0	0.0	0.9	0.9	0.0	0.0	0.0
Crazy Mountains	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gallatin Range	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Henry's Mountains, Hebgen Basin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madison Range	0.0	0.0	0.7	0.7	0.7	0.7	0.7
Forest Total	3.9	3.9	11.1	11.5	5.0	5.0	5.0
Cross-Country Skiing Marked Trail							
Absaroka Beartooth Mountains	12.1	12.1	7.3	5.5	10.2	10.2	12.0
Bridger, Bangtail Ranges	0.0	0.0	1.0	1.0	0.0	1.0	0.0
Crazy Mountains	0.0	0.0	0.3	0.9	2.8	2.8	6.7
Gallatin Range	7.2	7.2	12.6	12.6	6.7	12.5	7.4
Henry's Mountains, Hebgen Basin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madison Range	8.4	8.4	10.9	10.9	10.9	10.9	10.9
Forest Total	27.7	27.7	32.1	30.9	30.6	37.4	37.0

Table 3.18. 8 Summary of winter snowmobile area closures, by mountain range, by alternative.

Type of Closure	Approximate Acres						
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7-M
Yearlong Snowmobile Area Closure							
Absaroka Beartooth Mountains	21,568	23,286	30,107	33,367	46,341	33,367	33,524
Bridger, Bangtail Ranges	2,174	2,174	17,397	17,397	37,895	17,397	12,393
Crazy Mountains	0	0	41,383	41,383	70,868	41,383	60,554
Gallatin Range	54,314	54,314	105,107	142,766	172,560	183,535	167,042
Henry's Mountains, Hebgen Basin	23,463	23,463	21,060	23,740	23,740	28,110	25,943
Madison Range	20,310	20,310	62,384	65,480	66,216	143,784	73,741
Forest Total	121,829	123,547	277,438	324,133	417,620	447,576	373,197
Percent Roadless Open to Snowmobiles	83%	82%	61%	54%	41%	36%	47%
Seasonal Snowmobile Area Closure							
Absaroka Beartooth Mountains	0	0	0	0	0	0	0
Bridger, Bangtail Ranges	4,101	4,101	3,676	3,676	4,319	3,676	4,965
Crazy Mountains	2,290	2,290	2,290	2,290	2,290	2,290	2,290
Gallatin Range	16,667	16,667	16,679	0	0	0	0
Henry's Mountains, Hebgen Basin	0	0	0	0	0	0	0
Madison Range	37,855	53,003	37,642	38,103	86,337	9,414	30,919
Forest Total	60,913	76,061	60,287	44,069	92,946	15,380	38,174

Cumulative Effects

Net Effects of Past and Present Programs and Activities

Historic timber harvest, road construction, range allotment management, road and trail facility maintenance, fire management activities, ski area development and mining have all shaped the extent and quality of today's roadless lands on the Gallatin NF. Of the non-wilderness acres of the Gallatin NF, approximately 700,000 acres retain their roadless character. Current land management activities within roadless are designed to retain, improve or only temporarily effect roadless character, per direction from the Roadless Final Rule and Forest Service interim directives. Development of roadless as outlined in the 1987 forest plan for timber harvest has been at least temporarily suspended. Land acquisition projects and road decommissioning may add to the roadless land base of the forest in the short term.

Please see the affected environment discussion in an earlier section of this chapter for more detailed review and outcome of net effects of past programs.

Projected Combined Effects of Reasonably Foreseeable Programs and Activities

A number of reasonably foreseeable projects could affect roadless characteristics within the next 5 years. Weed treatment, fuels treatment projects, range allotment improvements and management

activities, ongoing trail maintenance and reconstruction, and fire suppression activities all have the potential to have minor cumulative effects to roadless characteristics.

The final Forest Weeds Environmental Impact Statement (USDA 2005) preferred alternative identified about 2900 acres of weed infestations in roadless that are targeted for treatment. The preferred alternative would greatly improve natural integrity in roadless by aggressively treating noxious weeds promoting the restoration of native species. Short term effects to opportunities for solitude are likely if recreationists encounter weed control crews while working in roadless. Apparent naturalness may also be effected in the short term where chemical odors from herbicide treatments persist, or grubbing/pulling/mechanical treatments are obvious.

Fuels treatments are proposed across the Forest, including projects in roadless. Pretreatment of fuels prior to burning could result in impacts to apparent naturalness where stumps and slash piles were obvious. During pretreatment and burning operations, short term impacts to opportunities for solitude could be expected where recreationists encountered crews working with chainsaws, helicopters, etc. Treating fuels could result in short term exposure to weed infestations in burned areas – impacting natural integrity. In the long term, fuel treatment will benefit natural integrity by restoring a more natural fire regime to areas where fires have long been suppressed.

Ongoing management of range allotments within roadless could affect apparent naturalness and natural integrity in some areas. Skilled observers are likely to notice that vegetation has been grazed in some areas and species composition affected. The presence of manure and stock trails would not appear natural to many. Range improvements like fences and watering facilities are an obvious sign of man's work on an otherwise natural appearing landscape. Natural integrity of sites where over grazing occurs could be impacted by erosion, weed infestation, species composition changes, soil compaction, and damage to vegetation.

Administrative activities like trail maintenance, fire suppression and weed control all have the potential to have short term effects on opportunities for solitude, and apparent naturalness, while those projects are underway. Visitors may encounter work crews, camps, motorized and mechanized equipment associated with these projects that may affect opportunities for solitude. Fresh trail construction would not appear natural to some.

Road decommissioning of unneeded project roads will improve natural integrity, apparent naturalness, and sense of remoteness in roadless portions of the forest. Rehabilitation of these routes would likely expand the total acreage of IRAs as long as other obvious land management activities proximate to the decommissioned roads (like old timber harvest) were insignificant.

In the next 5 years, growing recreation use from all user types (hikers, horsemen, bikers, etc.) will likely reduce opportunities for solitude in some roadless areas.

None of the effects described above would significantly reduce roadless quality or significantly compromise the potential to designate roadless lands as wilderness in the future.

Cumulative Effects of Past, Present and Reasonably Foreseeable Programs and Activities with the Travel Plan Alternatives

Effects common to all alternatives

Cumulative effects of proposed travel plan activities to roadless character are largely the same as the direct and indirect effects discussed earlier in this chapter. Minor additive effects to roadless character (both negative and positive) can be anticipated from the activities described in the previous section: projected combined effects of reasonably foreseeable programs and activities. None of the proposed alternatives and associated cumulative effects would cause irreversible or irretrievable effects to roadless characteristics that would negate future consideration for wilderness designation.

Alternative 1

Alternative 1 would allow unrestricted summer motorized vehicle access to travel cross country on the forest except where it is expressly prohibited by the 1999 travel plan. Approximately 260 miles of system trail in roadless that are currently single track routes would remain open to all motorized vehicles. Larger trail vehicles and 4x4 vehicles may attempt to travel some of these routes, converting single track trails to double tracks over time. Soil disturbance from this conversion would make these corridors more vulnerable to erosion and invasion of noxious weeds, which would negatively affect natural integrity and apparent naturalness. Unauthorized user created routes could continue to proliferate under this alternative, further affecting apparent naturalness, opportunities for solitude and the sense of remoteness. These affects to roadless character would be additive to effects described in the previous section. These minor cumulative effects to the physical parameters of roadless character would not negate future consideration of these areas as wilderness.

Alternatives 2 through 7-M

Alternatives 2 through 7-M would all require summer motorized vehicle traffic to stay on designated routes. See the previous discussion in this chapter regarding the number of miles of single track trails that would be managed as double track routes for each alternative. The construction of new ATV trails in roadless would vary from 0 miles in Alternative 6 to 8.7 miles in Alternative 3. Alternative 7-M would construct approximately 5.3 miles of new ATV routes in roadless. Conversion of single track routes to double track, and the addition of new double track routes in roadless may make the corridors more susceptible to soil erosion, invasion of noxious weeds, affecting natural integrity and apparent naturalness, an additive negative effect when viewed in combination with other reasonably foreseeable effects. These minor cumulative effects to the physical parameters of roadless character would not negate future consideration of these areas as wilderness.

Effects of Proposed Goals, Objectives, Standards and Guidelines

Alternatives 2 through 7-M propose a number of goals and objectives to provide for recreation opportunity, access and to improve other resource conditions that may have been adversely affected

by the Forest's transportation system. Goals and objectives, by themselves, have no environmental effect because they do not constitute final agency decisions. Environmental effect under NEPA is more appropriately addressed at such time that specific actions are proposed to achieve these goals and objectives. The proposed Travel Management Plan does include the final agency decisions for management of public travel and this reflects implementation of the goals and objectives proposed for recreation opportunity (for example Forest-wide Goal A, Objective A-1, and Travel Planning Area Goals 1 and 2 and Objectives 1-1 and 2-1). The predicted direct, indirect and cumulative effects of public travel on roadless values and hence the implementation of these goals and objectives are addressed earlier in this section.

Alternatives 2 through 7-M also propose standards and guidelines to provide for protection of other resources during Travel Plan implementation. Standards and guidelines include protection measures within which future proposals for road and trail construction, reconstruction, maintenance and decommissioning must take place. These are considered final agency decisions because they set limitations within which future actions must take place.

The proposed goals, objectives, standards and guidelines that are relevant to the protection and improvement of roadless values are discussed below.

Many of the proposed goals, objectives and standards that would apply to Alternatives 2 through 7-M would have beneficial effects to maintaining or restoring natural integrity and improving or maintaining apparent naturalness and the sense of remoteness in roadless areas. None of the proposed goals, objectives, standards or guidelines would have a tangible effect on boundaries or future manageability of these areas as Wilderness.

Specifically in Alternatives 2-6:

Standard A-6: Prohibits off-route travel by summer motorized vehicles. This would significantly reduce impacts to natural integrity and apparent naturalness by the proliferation of unauthorized user-created routes. Over time, existing user-created routes would heal, and become unnoticeable.

Standard A-10: Prohibits certain summer motorized uses in new routes designated for that use until such routes meet applicable engineering standards. This would reduce impacts to natural integrity and apparent naturalness. By restricting traffic until the routes meet standard, trail erosion would be limited, unnecessarily widened trails avoided, go-arounds and parallel trails minimized, all improving natural integrity and apparent naturalness.

Goal C, and Objectives C-1, C-2 and C-3: These would greatly improve natural integrity and apparent naturalness in areas where unneeded roads and trails are restored. Vegetation would be restored, water flows and function returned to something more akin to an undisturbed site, and soils allowed to rejuvenate. Revegetating these routes with native vegetation would also reduce the likelihood of noxious weed infestations. Once restored, and naturalized, these areas would also seem more remote to users, by removing the obvious signs of man's presence.

Goals D through Goals I, and all associated Objectives: These would all benefit natural integrity by providing healthy habitats, restoring wildlife corridors, aiding with the recovery of threatened and endangered species, and improving native fisheries.

Objective B-1: This objective to acquire specific access needs displayed in Table I-4 which could have a negative effect on the feeling of remoteness in certain portions of roadless if new access were acquired. See the Direct Effects discussions for details.

Specifically in Alternative 7-M:

Standard A-8: Prohibits off-route travel by summer motorized vehicles, which would significantly reduce impacts to natural integrity and apparent naturalness by the proliferation of unauthorized user-created routes. Over time, existing user-created routes would heal and become less noticeable.

Guideline A-12: Prohibits certain summer motorized uses on new routes designated for that use until such routes meet applicable engineering standards. This would reduce impacts to natural integrity and apparent naturalness. By restricting traffic until the routes meet standards, trail erosion would be limited, unnecessarily widened trails avoided and go-arounds and parallel trails minimized, all of which would improve natural integrity and apparent naturalness.

Goal D, and Objectives D-1, D-2 and D-3: Would greatly improve natural integrity and apparent naturalness in areas where unneeded roads and trails are restored. Vegetation would be restored, water flows and function returned to something more akin to an undisturbed site, and soils allowed to rejuvenate. Revegetating these routes with native vegetation would also reduce the likelihood of noxious weed infestations. Once restored and naturalized, these areas would also seem more remote to users, as the obvious signs of man's presence would be gone. Some areas that do not currently qualify to be included in the roadless inventory may be included after rehabilitation of these old routes.

Goals E through H, Goal M and all associated Objectives: Would benefit natural integrity by providing healthy habitats, restoring wildlife corridors, aiding with the recovery of threatened and endangered species and improving native fisheries.

Standard D-5: Would close project roads not designated for open public use by the Travel Plan to public motorized use, which would improve opportunities for solitude and the sense of remoteness in some areas.

Objective B-3: This objective to acquire specific access needs displayed in Table I-8 which could have a negative effect on the feeling of remoteness in certain portions of roadless if new access were acquired. See the Direct Effects discussions for details.

Consistency with Laws, Regulations, Policy, and Federal, Regional, State, and Local Land Use Plans (including the Forest Plan)

Federal laws and agency policy that provide for the management of inventoried roadless lands are:

- *Roadless Final Rule 5.13.2005 36 CFR Part 294:* Special Areas; State Petitions for Inventoried Roadless Area Management; Roadless Area Conservation National Advisory Committee; Final Rule and Notice.

- Forest Service Manual 1920, Interim Directive 1920-2006-1: Interim direction subsequent to the May 2005 Roadless Rule that provides guidance to Forests on managing road building and timber harvest in inventoried roadless areas.
- Forest Service Manual FSM 1923.03(1): Roadless planning guide: outlines what activities are appropriate in roadless areas that are recommended wilderness.
- Forest Service Handbook 1909.12 and 1909.15: Regarding Wilderness potential for roadless lands, and providing direction to complete an Environmental Impact Statement any time a proposed activity would alter the undeveloped character of roadless lands 5,000 acres or greater in size.
- Gallatin Forest Plan 1987: Identifies the Inventoried Roadless Areas recommended for designation as Wilderness through that planning effort. Forest plan management area prescriptions determined whether roadless parcels not recommended for wilderness designation would be considered for road construction, timber harvest, or some other surface disturbing management action at some future point or managed as without roads.

There is no current Forest Plan, policy or other legal direction that prohibits motorized recreation from IRAs specifically.

Agency policy at this time is described in Interim Directive FSM 1920-2006-1 that protects roadless land values described in the 2005 rule. In that travel management proposals would not construct new roads, or harvest timber within IRAs – all alternatives are consistent with the interim directive.

All alternatives would be consistent with laws, regulations and policy regarding the management of roadless lands with a few minor exceptions.

Within the roadless portion of the Gallatin National Forest, two areas are covered by special legislation that would be in conflict with facets of several alternatives. Within the Hyalite/Porcupine-Buffalo Horn Wilderness Study Area, alternatives that would manage ATV trails (Alternatives 1-4) would not be in keeping with the mandate of the Wilderness Study Act to maintain existing wilderness characteristics circa 1977 (see Issue 21: Wilderness).

Similarly, the Lee Metcalf Wilderness Act (PL 98-140) designated the Cabin Creek Wildlife Management Area (located within the Madison roadless unit) with some specific constraints for land managers. Section 2 c of the Act states (in reference to Cabin Creek): *“The area shall further be administered by the Secretary of Agriculture to maintain presently existing wilderness character... The Secretary shall permit continued use of the area by motorized equipment only for activities associated with existing levels of livestock grazing, administrative purposes (including snowmobile trail maintenance) and for snowmobiling during periods of adequate snow cover but only where such uses are compatible with the protection and propagation of wildlife within the area: **Provided**, That the Secretary may, in his discretion, also permit limited motor vehicle access by individuals and others within the area where such access is compatible with the protection and propagation of wildlife and **where such access was established prior to the date of enactment of this Act” (emphasis added).***

The law was passed in October 1983. At that time, motorized use of the area was primarily snowmobiling, with limited motorcycle use. ATVs were not an established use in the area, nor

were jeep trails present except on the Oil Well Road, which extends from the north in the Taylor Fork into the Cabin Creek Wildlife Management area (Coffin, USDA Forest Service, personal communication). Alternatives 1-4 would manage ATV use on certain trails within the roadless portion of the area. ATV trails not co-located with jeep trails that existed in 1983 would not be consistent with the direction of the law. The legislative record indicates that one of the primary reasons this portion of the Madison Range was not designated as wilderness was the established very popular use of this area for backcountry challenge snowmobiling. Alternatives that allow continued use of this area for backcountry snowmobiling are consistent with the original legislative intent of the Act. The caveat that motorized uses be compatible with wildlife values would still apply. Wildlife effects analysis indicate that continued snowmobile use in Cabin Creek would be acceptable (see Issue 9: General Wildlife).