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Forest  
Service

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# Environmental Assessment

## Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project



**Spotted Bear Ranger District  
Flathead County, Montana**

**Swan Lake Ranger District  
Lake County, Montana**

**Flathead National Forest**

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# **BRUCE CREEK TO ALPINE 7 TO NAPA POINT MOTORIZED TRAILS PROJECT**

## **INTRODUCTION**

The Spotted Bear and Swan Lake Ranger Districts propose closing the Bruce Creek and Napa Point Trails to motorized use and closing the Alpine 7 Trail to motorized use from its intersection with Bruce Creek Road south to the Napa Point Trail. These single-track trails are currently open to motorcycle and non-motorized use only. This project is located in the Southern Swan Crest area, approximately 9 miles southeast of Bigfork and 2 miles west of Spotted Bear Ranger Station in Lake and Flathead Counties, Montana (Map 1 – Project Vicinity). The project area includes approximately 19.7 miles of system trail on National Forest System (NFS) lands.

The analysis for this Environmental Assessment (EA) is being conducted in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. Additional documentation, including detailed analyses of project area resources, is in the Project File located at the Spotted Bear Ranger District Office in Hungry Horse, Montana. These records are available for public review.

## **BACKGROUND**

The project would restrict currently authorized motorcycle use on three trail segments on the Spotted Bear and Swan Lake Ranger Districts (Map 2 – Proposed Action Southern Swan Crest Trails). A brief discussion of how we came to propose this action follows.

The Bruce Creek Trail system, where motorcycle use would be restricted, includes Trails 82A, 82, 101, and 101A. Field reviews of this system have shown extremely limited motorcycle use, and some portions of the trails are located in steep areas difficult to maintain for motorcycle use. The closure of these trails to motorcycle use would move the Jungle Addition Grizzly Bear Subunit toward security standards outlined in the Flathead National Forest Land and Resource Management Plan (Forest Plan).

Trail reconstruction on portions of the Alpine 7 Trail occurred from 2002 to 2007; that project reconstructed the Alpine 7 Trail from Sixmile Lookout south to the Napa Point Trail. Based on field observations, the portion of the Alpine 7 Trail included in this project contains areas of fragile soils and tight switchback conditions. The maintenance and reconstruction experience gained over the past several years indicates that this portion of the trail is not well suited to motorized use. Very infrequent motorcycle use has been encountered over the past several years on this portion of the Alpine 7 Trail.

Napa Point Trail (#31) is accessed by Road #10505 with the trailhead at about 6,400 feet in elevation. This high elevation trailhead makes the Napa Point Trail system easily accessible, which leads many hikers, horseback riders, and mountain bikers to utilize this trail. The junction

of the Napa Point Trail and the Alpine 7 Trail is adjacent to Gorge Creek Trail (#218), a non-motorized trail providing access to the Bob Marshall Wilderness, about 1.5 miles to the southeast. The Napa Point Trail has a relatively easy grade, (which combined with its high elevation starting point is appealing to day hikers) but is very narrow in many places due to very steep terrain. Increased motorized use on this segment of trail would likely lead to safety issues due to these physical characteristics and to potential user issues as described in more detail in the Recreation section of this document.

This combination led the Swan Lake and Spotted Bear Ranger Districts to the Proposed Action; more detail on the basis for this action follows.

### **PURPOSE AND NEED**

The purpose of the Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project is to reduce current and future resource impacts on these trails and the adjacent areas, and to reduce current and future conflicts between motorized and non-motorized backcountry users on these trails. Currently the Napa Point to Alpine 7 to Crevice Lake trails are among the most popular hiking trails in the Southern Swan Crest area and receive very limited motorcycle use. Prohibiting motorcycle use would reduce the potential for future use conflicts. Portions of these trails contain soil conditions and tight switchbacks that make them less suitable for motorcycle use than less steep ground with better soils. Closing the Bruce Creek Trail to motorcycle use would move the Flathead National Forest towards its grizzly bear security objectives within the Jungle Addition Grizzly Bear Subunit.

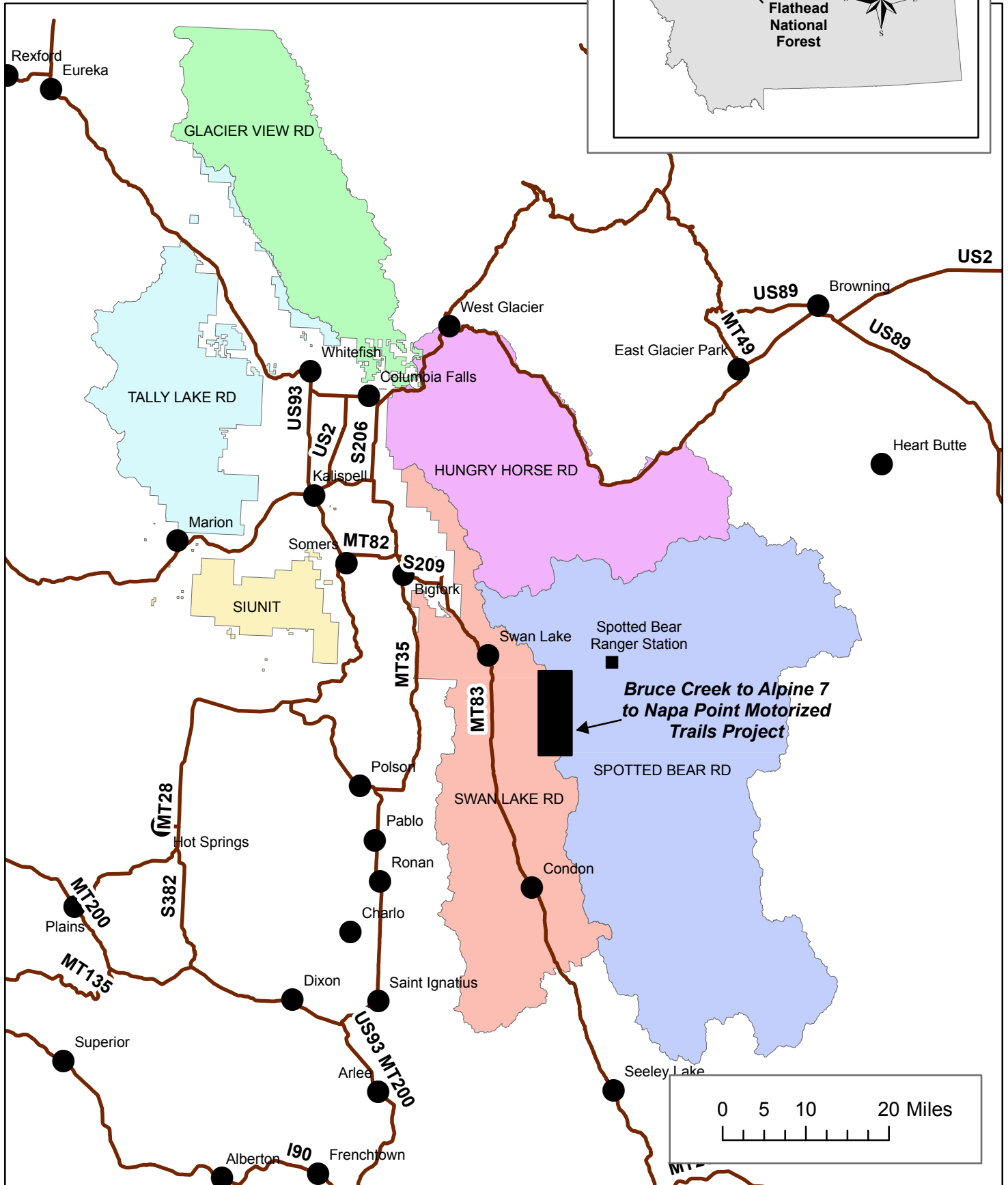
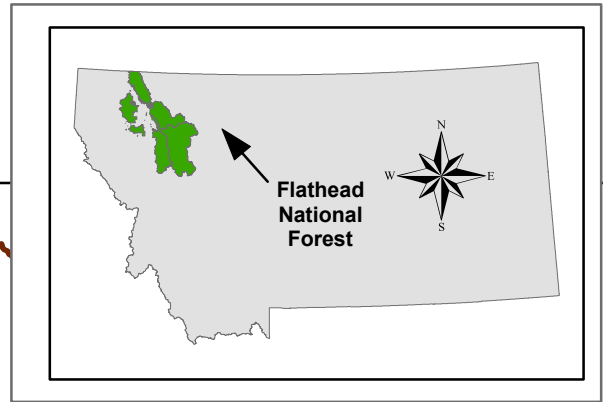
### **PROPOSED ACTION**

The Proposed Action would exclude all wheeled motorized use on approximately 19.7 miles of trails currently open to motorcycle use (Map 2).

- Bruce Creek Entry #82A (on closed Road 2827) (2.7 miles)
- Bruce Creek #82 (3.5 miles)
- Bunker Creek #101 (upper portion) (2.0 miles)
- Bunker-Alpine Connect #101A (0.9 mile)
- Alpine 7 Trail from its intersection with the Bunker-Alpine Connect #101A (near Crevice Lake) south to its intersection with the Napa Point Trail #31 (7.3 miles)
- Napa Point #31 (3.3 miles)

# Map 1 - Project Vicinity Map

## Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project

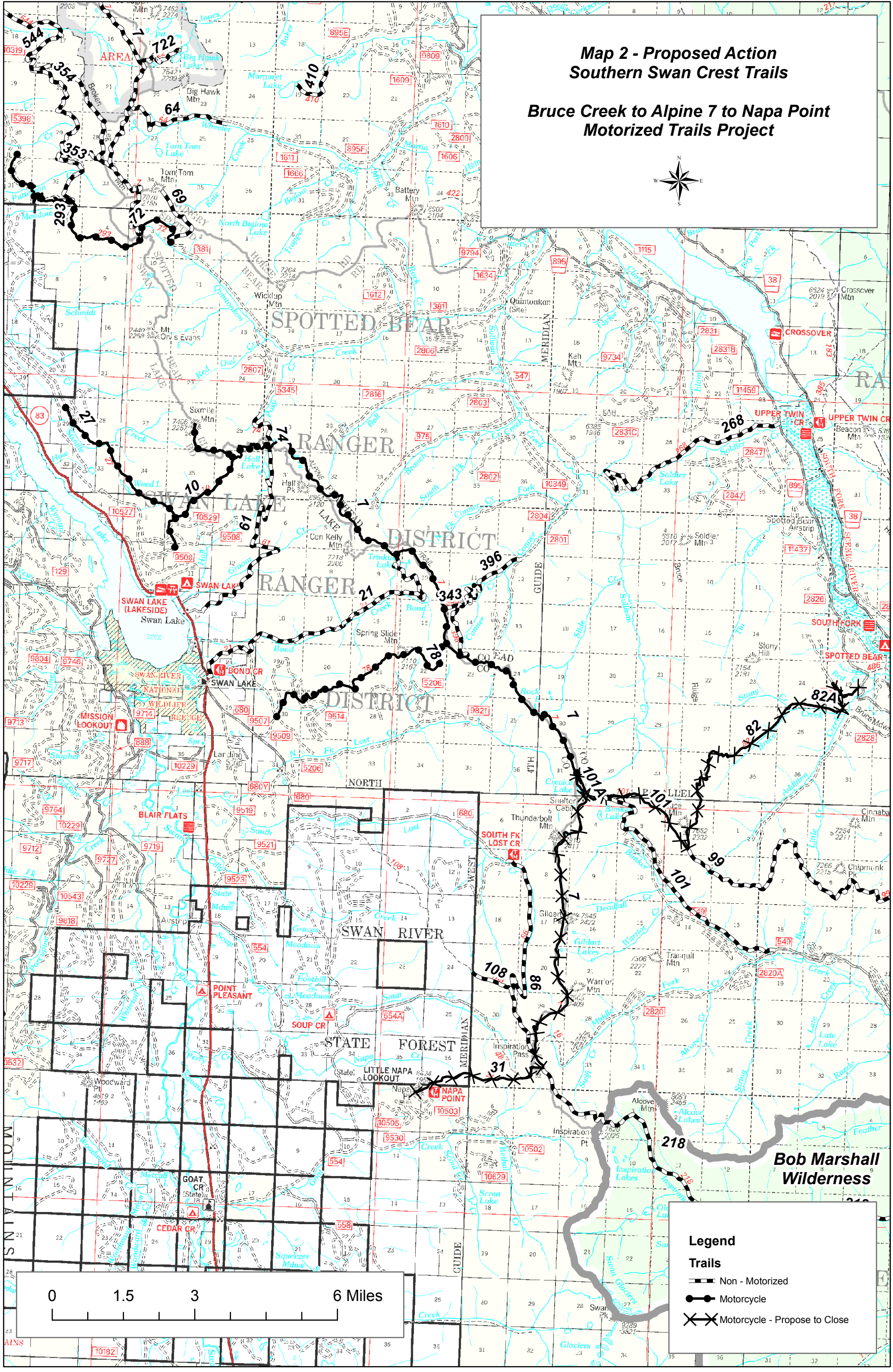


## **Back of Map 1**



# Map 2 - Proposed Action Southern Swan Crest Trails

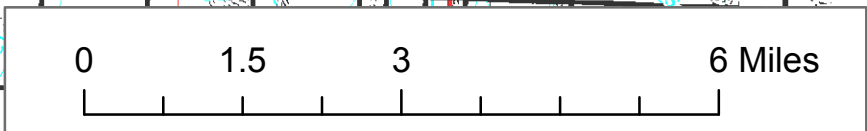
## Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project



**Legend**

**Trails**

- Non - Motorized
- Motorcycle
- ✕ Motorcycle - Propose to Close



**Back of Map 2**

## **PUBLIC INVOLVEMENT AND THE SCOPING PROCESS**

Over the past few years there have been public comments from various user groups and individuals concerning the management of trails in the Swan Crest area. These users have contacted both Ranger Brady at the Swan Lake Ranger District and Ranger Mucklow at the Spotted Bear Ranger District.

In February 2007, the Spotted Bear Ranger District held an Open House related to implementing national direction for motorized travel management and off-highway vehicles (OHV). The District asked if there was a need for change to the existing open motorized situation, and received 57 letters, emails, other correspondence, phone calls, and visits providing feedback. About half of the comments were related to trails in the Southern Swan Crest area, specifically Bruce Creek and Alpine 7 to Napa Trailhead.

Specific concerns that shaped the Proposed Action Alternative included the following:

- Currently, motorized use is very low and non-motorized use is relatively high on these trails. It is likely that this area would see heavier motorized use in the future with the resulting increased potential for motorized and non-motorized user conflicts.
- The suitability, relative to soil, moisture, grade, switchbacks, and trail layout, of these trails to sustain existing and potential motorized use.
- In the case of the Bruce Creek Trail, the potential to move the Jungle Addition Grizzly Bear Subunit toward Forest Plan standards for grizzly bear security.

The public was involved in the Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project through informational news releases, mailings, public meeting, publication of the project in the Forest Service Schedule of Proposed Action, and one-on-one meetings. We received 108 letters, emails, other correspondence, phone calls, and visits providing us feedback on our Proposed Action. Sections F and G of the Project File provide documentation of the public involvement and scoping process.

The Interdisciplinary Team and the Responsible Officials thoroughly reviewed comments and concerns received on the Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project. Some comments were beyond the scope of this project, others were addressed by the Forest Plan or other regulatory framework, some were beyond the geographical influence of this project, and others did not pertain to this specific proposal. Comments and concerns that fell into these categories were not considered relevant to this project-specific assessment, and were not addressed.

The remaining comments and concerns were further examined to determine how they could best be addressed in the EA. No comments resulted in the development of alternatives to the Proposed Action (comment categorization is in the Project File, Exhibits F-1 and G-1).

## **RELATIONSHIP TO THE FOREST PLAN**

The Forest Plan, as amended, embodies the provisions of the National Forest Management Act (NFMA), its implementing regulations, and other guiding documents. The Forest Plan details the direction for managing the land and resources of the Flathead National Forest. Where appropriate, the Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project EA tiers to the Forest Plan Final Environmental Impact Statement (FEIS), per 40 CFR 1502.20. The Forest Plan provides forest-wide goals and objectives (pages II-1 through II-65).

The Forest Plan uses Management Areas (MA) to guide management of National Forest System (NFS) lands within the Flathead National Forest. Each MA provides for a unique combination of activities, practices, and uses. Chapter III of the Forest Plan contains a detailed description of each MA. A summary of applicable MA direction for the Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project is provided in Table 1.

**Table 1. Management Area Description and Miles of Trail in the Proposed Action**

MA	MA Description	Miles of Trail
<b>2B</b>	Consists of unroaded lands suited for dispersed recreation for semi-primitive motorized settings.	6.8 miles (Trails 82 & 31)
<b>11A</b>	Consists of timber and non-forest lands capable of providing grizzly bear habitat located in the Bunker Creek area on the Spotted Bear Ranger District.	10.2 miles (Trails 101, 101A, & 7)
<b>15</b>	Timberlands where timber management with roads is economical and feasible. Emphasize cost-efficient production of timber with roads, while protecting the productive capacity of the land and timber resources.	2.7 miles (Trail 82A)

## **DECISION FRAMEWORK**

The following criteria were used to make a decision on this project.

- Achievement of the Purpose and Need of the project.
- Relationship to environmental and social issues, and public comment.
- Consistency with the Forest Plan.

## **ALTERNATIVES**

A No Action Alternative (Alternative 1) and an Action Alternative (Alternative 2, the Proposed Action) were developed in response to issues identified during scoping, either from within the agency or from the public. A broad range of comments was received during scoping. Some comments asked for consideration of closure of other trails for a variety of reasons and others asked for the consideration of additional motorized use. The scope of the project is limited to the

site-specific Purpose and Need for this Proposed Action. For this reason, the Swan Lake and Spotted Bear District Rangers did not consider, in detail, alternatives that included other trails or other actions beyond those stated in the Purpose and Need section of this document. This section describes and compares the alternatives considered by the Forest Service for the Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project. It includes a description of each alternative considered in detail and a comparison of the relevant environmental effects of these alternatives.

### ***Alternative 1 - No Action Alternative***

The No Action Alternative would result in no change in management activities on National Forest System lands within the Project area at this time.

### ***Alternative 2 – Proposed Action***

The Proposed Action is summarized on page 2 and displayed in Map 2. The Proposed Action would close approximately 19.7 miles of currently open trail to motorized use. The Bruce Creek, Alpine 7, and Napa Point Trails would be the primary trails affected (see Proposed Action, page 2). This closure would meet the Purpose and Need of the project by separating motorized and non-motorized users, reducing current and future conflicts between motorized and non-motorized users, and improving grizzly bear security in the Jungle Addition Grizzly Bear Subunit.

### ***Comparison of the Alternatives***

Tables 2 and 3 provide a comparison of relevant environmental consequences associated with the implementation of the alternatives. A more detailed description of environmental effects can be found in this EA beginning on page 12 and in the Project File.

**Table 2. Comparison of Relevant Environmental Effects by Alternative - Wildlife**

<b>Natural Resource and Environmental Consequence</b>	<b>Alternative 1 (No Action)</b>	<b>Alternative 2 (Proposed Action)</b>
<b>Threatened and Endangered Wildlife Species Summary of Potential Impacts</b>		
<b>Grizzly Bear</b>	No change in modeled baseline, which considers any motorized use as fully impactful. If current low levels of trail use increase, habitat quality may decrease for bears.	Improves overall habitat security by decreasing motorized access; moves two subunits closer to compliance with Forest Plan Standards; and further reduces motorized access in four subunits already meeting Forest Plan Standards.
<b>Gray Wolf</b>	No change expected unless motorized use increases in the future and leads to increased disturbance to ungulates.	Improves habitat security and may somewhat improve habitat availability for major prey species.

<b>Natural Resource and Environmental Consequence</b>	<b>Alternative 1 (No Action)</b>	<b>Alternative 2 (Proposed Action)</b>
<b>Canada Lynx</b>	No change expected for lynx based on current research.	No impacts to lynx or habitat are expected, current motorized use does not occur in winter.
<b>Sensitive Wildlife Species - Biological Evaluation Determinations</b>		
<b>Bald Eagle</b>	No Impact	No Impact
<b>Peregrine Falcon</b>	No Impact	No Impact
<b>Flammulated Owl</b>	No Impact	No Impact
<b>Harlequin Duck</b>	No Impact	No Impact
<b>Common Loon</b>	No Impact	No Impact
<b>Townsend's Bat</b>	No Impact	No Impact
<b>Black-backed Woodpecker</b>	No Impact	No Impact
<b>Wolverine</b>	May Impact Individuals or Habitat	Beneficial Impact
<b>Fisher</b>	No Impact	No Impact
<b>Northern Goshawk</b>	No Impact	No Impact
<b>Northern Leopard Frog</b>	No Impact	No Impact
<b>Boreal Toad</b>	May Impact Individuals or Habitat	Beneficial Impact
<b>Northern Bog Lemming</b>	No Impact	No Impact
<b>Management Indicator Species - Summary of Potential Impacts</b>		
<b>Elk, Mule Deer, &amp; White-tailed Deer</b>	No change expected unless motorized use increases in the future.	Reduction in motorized use could increase use of high-value alpine habitat (to an unknown degree).
<b>Old-Growth Species</b>	No change expected.	No vegetation management - habitat would not be affected.
<b>Snags &amp; Down Wood</b>	No change expected.	No vegetation management - habitat would not be affected.

**Table 3. Comparison of Relevant Environmental Effects by Alternative - Recreation**

<b>Natural Resource and Environmental Consequence</b>	<b>Alt. 1 (No Action)</b>	<b>Alt. 2 (Proposed Action)</b>
<b>Miles of Trail Open to Motorcycles in the Southern Swan Crest Area</b>	60	40
<b>Miles of Trail Closed to Motorcycles in the Southern Swan Crest Area</b>	49	69
<b>Separates Motorized and Non-motorized Users in the Project Area</b>	No	Yes

## **SUMMARY OF ENVIRONMENTAL EFFECTS**

This section describes the environmental impacts of the Proposed Action and No Action Alternatives by resource area. Specialist reports, which include more detail on analysis area descriptions (including spatial and temporal bounds and existing condition), can be found in the Project File. Section J in the Project File contains the Biological Assessment (BA) and Biological Evaluation (BE) for this project. Past, present, and reasonably foreseeable actions, including cumulative effects, are included in the specialists' reports in the Project File.

Table 4 provides a summary of the actions considered in the cumulative effects analysis for Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project.

**Table 4. Actions Considered in the Cumulative Effects Analysis**

<b>Action</b>	<b>Past</b>	<b>Present</b>	<b>Future</b>
Road and Trail Management (Road Maintenance, Road Closures)	X	X	X
Trail Maintenance and/or Construction (National Forest System Trails 82A, 82, 101, 101A, 7, 31)	X	X	X
Special Use Permits – Outfitter Guides. (Alpine 7 Trail - Swan Lake RD - Great Northern Llama Co.) (Non-wilderness - Spotted Bear RD - Wilderness Lodge Resort, Spotted Bear Ranch Resort, Diamond R Resort)	X	X	X
Dispersed Recreation (Hiking, Horseback Riding, Mountain Bike Use, Motorcycle Riding, Camping, Hunting, Sight-seeing, etc)	X	X	X
Noxious Weed Control	X	X	X

## **RECREATION**

### ***Analysis Area***

The entire Swan Crest area is described as those trails located from Napa Point Trail 31 and the Bob Marshall Wilderness boundary north 60 miles to Highway 2; and between the Hungry Horse Reservoir and the South Fork Flathead River west 15 to 30 miles to the FNF boundary near State Highways 83, 35, and 206. The Swan Crest area can be further subdivided as follows:

- Northern Swan Crest - trails north of Jewel Basin Hiking area (Map 3)
- Central Swan Crest - trails in the Jewel Basin and the immediate area (Map 3)
- Southern Swan Crest - trails south of Jewel Basin and then south to Napa Point Trail 31 and the Bob Marshall Wilderness Complex boundary (Map 2).

The evaluation of direct and indirect effects for the proposed motorized change to the three trails included in the Proposed Action is assessed within the Southern Swan Crest area. Cumulative effects (includes past, present, and reasonably foreseeable actions) are evaluated for the entire Swan Crest area. Cumulative effects are analyzed for the entire Swan Crest because it has a similar base of user types and day use patterns, and because it offers a challenging high-elevation alpine experience. A few expert motorcycle riders use trails open to motorcycles in both the Northern and Southern Swan Crest. The few groups that ride these areas tend to ride the entire Swan Crest.

Information for this analysis was gathered through observations made during routine trail maintenance and trail reconnaissance surveys, discussions with visitors, and by reviewing project scoping comments. Road and trail mileages reported were obtained from the Flathead National Forest INFRA trails database.

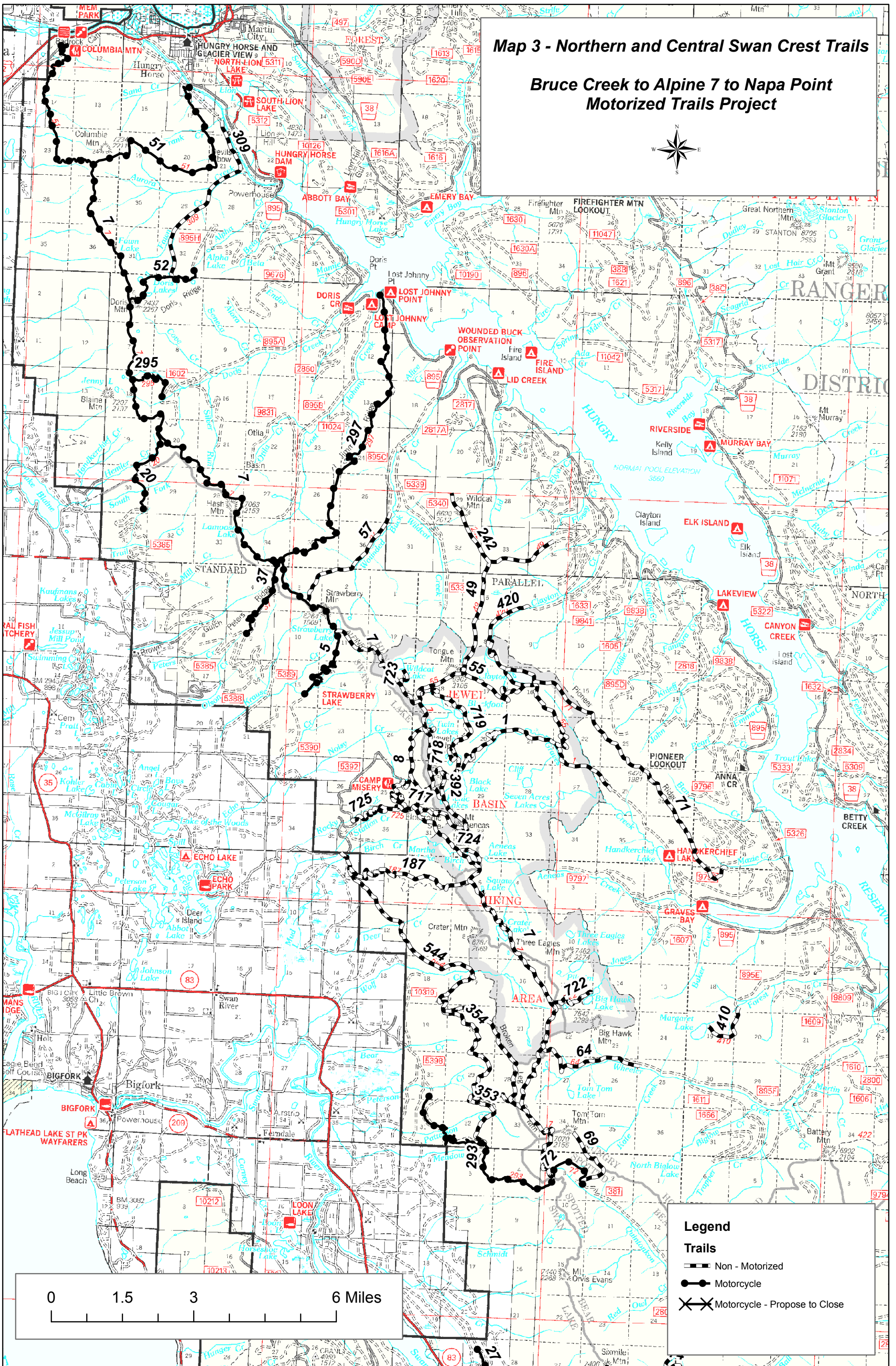
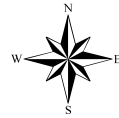
The following Proposed Action analysis documents the Existing Condition (Alternative 1) and the effects of the Proposed Action (Alternative 2) on the recreation resource. The analysis focuses on the trail conditions and on the opportunities and experiences available to visitors.

The evaluation of direct, indirect, and cumulative effects on recreation used the most recent and available information, as well as data related to past, present, and reasonably foreseeable events that have occurred or may occur in the recreation analysis area. Applicable past, present, and reasonably foreseeable events described in the cumulative effects section were considered during the evaluation of the affected environment. The condition of the affected environment, together with the applicable reasonably foreseeable events, was considered during the analysis of the environmental effects of the alternatives.



# Map 3 - Northern and Central Swan Crest Trails

## Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project



**Legend**

**Trails**

- Non - Motorized
- Motorcycle
- ✂ Motorcycle - Propose to Close



Back of Map 3

## ***Affected Environment***

The Southern Swan Crest trails that are inventoried and entered as system trails in the INFRA data base are the trails that are analyzed. The Southern Swan Crest area currently has 60 miles of trail open to motorcycles and non-motorized users, including foot, stock, and bicycle travel; 49 miles are open exclusively to non-motorized use.

### **Description of Proposed Action Trails**

Bunker Creek Entry Trail 82A (located on the closed Road 2827), Bruce Creek Trail 82, and the portions of Bunker Creek Trail 101 and Bunker-Alpine Connect Trail 101A in the Proposed Action are open to motorcycle use; no other type of motorized use is allowed on these trails. All of the routes together provide a single access to the Alpine 7 Trail, rising from 4,000 feet up to 7,100 foot elevation over 9.1 miles. Based on our observations, all of these trails currently have low use.

The Alpine 7 Trail from the junction with the Bunker-Alpine Connect Trail 101A at Crevice Lake south to Napa Point Trail 31 is currently open to motorcycle use. It traverses a mostly or partially open alpine area for over 7.3 miles, from 6,900 to 7,600 feet in elevation.

The Napa Point Trail #31 climbs to the ridge (6,900') in 3.3 miles from the trailhead at the end of the Napa Point Road 10525 (6,400'); it is currently open to motorcycle use.

Many portions of the trails of the Proposed Action are still located where they were constructed in the 1920s and 1930s to provide access to forest fires. With the exception of the Proposed Action portion of the Alpine Trail #7, these trails can be generally described as having narrow tread, some steep pitches, and several tight switchbacks. In some areas, poor trail location compounded by public use has led to erosion and the associated rutting of trail tread. Often, rutting leads to the establishment of parallel tracks as users avoid ruts and mud holes; this occurs in places along some of the trails.

On the Bruce Creek and Bunker Creek portions of the trail system, there are areas with tight switchbacks and some trail rutting. There are some areas with parallel trails, areas lacking water-bars, tread down cutting, and trenching.

The portion of the Alpine 7 Trail in the Proposed Action was reconstructed by the Forest Service between 2002 and 2007. This work included enhancing trail drainage through improvement of existing drainage structures and installation of new drainage structures, restoration of some rutted and eroded sections, and some trail relocating to avoid problem areas. The trail still passes through some very steep areas with tight switchbacks, and through areas with fragile and erosive soils. The trail is characterized as narrow and occasionally quite steep.

The Napa Point Trail has also received some heavier maintenance over the years including water-bar replacements and additions, and other routine trail maintenance. This trail still has some very narrow sections in steep areas (steep cross-pitches) that are being considered for future relocation.

Trail maintenance is prioritized based on the timing of snow melt, amount of visitor use, visitor use patterns, and access. Typically there are only enough trail maintenance funds to maintain 60-70% of the total trail miles on the Forest each year. The Napa Point and Alpine 7 Trails are usually maintained annually in mid to late summer because of their high amount of use. Bruce Creek Trail is usually maintained every other year because of its lower amount of use. On the Bruce Creek and Bunker Creek Trails, trail maintenance consists of cutting out trees that fall across the trail, and the cleaning of water bars. The Napa Point and Alpine 7 Trails normally receive yearly maintenance, which consists of cutting out trees that fall across the trail, and maintenance of existing and newly placed drainage structures. On any trail where drainage maintenance is not routinely performed, precipitation runoff down the trail can continue to down-cut where drainage structures have become ineffective. Trail users contribute to this down-cutting of the trail tread through normal use.

### **Human Use of Trails in the Proposed Action Area**

The Bruce Creek Entry Trail 82A, Bruce Creek Trail 82, Bunker Creek Trail 101, and Bunker-Alpine Connect Trail 101A are low-use trails. They receive occasional use by foot, stock, mountain bikes, and motorcycles.

The Alpine 7 Trail from Crevice Lake south to Napa Point receives higher use than the Bruce Creek and Bunker Creek Trails, but use is relatively low in comparison to use of the entire Swan Lake Ranger District trail system. Based on the field observations of Forest Service staff, this section of the Alpine 7 sees the highest levels of use of the Southern Swan Crest portion of the Alpine 7. Most of this use is by hikers and parties with stock along with some mountain bike use and very little motorcycle use.

The Napa Point Trail probably sees the highest level of use of these trails, with a moderate amount of use from hikers, stock parties, and mountain bikers, and very little motorcycle use. The higher volume of use on the Napa Point Trail is largely due to access; with a fairly high-elevation trailhead the public can quickly and easily (relatively) access the high country, making the trail attractive to use.

Based on conversations with motorcycle riders and the observations of the Forest Service, most motorcycle riders make use of the trails on day trips that can cover from 5 to 15 or more miles one way. It is understood that very few motorcycle riders participate in overnight trips along these trails. While motorcycle riders most often retrace their route back to their starting trailhead, it is commonly accepted that most trail users prefer loop routes. There are few loop opportunities along the Swan Crest. People tend to ride up to the main Alpine 7 Trail and go north or south along the trail, then retrace their route back to their starting point.

The great majority of trails in the Proposed Action, when traveled by motorcycle and mountain bike riders, are only used by expert riders because of the challenging nature of the trails. Generally, the trails have narrow tread, brushy areas, sections with roots and rocks in the tread, steep pitches, and some areas have trenches. These obstacles present less of a challenge to foot and stock users. There are limited water sources along the trail, which requires advanced planning for overnight camping trips. Non-motorized users tend to use trails and destinations

accessible in one day, which is one reason that many do use the high-elevation Napa Point Trailhead to access areas in the Southern Swan Crest area. Few non-motorized day users choose to traverse long segments of trail and retrace their route to their origins.

In the Southern Swan Crest area, including trails in the Proposed Action, there is overnight backpacking and stock use occurring along the Alpine 7 Trail. The Napa Point Trail is popular with both day and overnight users (foot and stock users), primarily because its trailhead is located at an elevation of 6,400 feet. Day-users tend to go to Inspiration Pass, Inspiration Point, or to Gildart Lakes, and then return. Most overnight foot and stock visitors travel to Sunburst Lake in the Bob Marshall Wilderness, and return the same way. A few overnight foot and stock users travel north on the Alpine 7 Trail and come out on Wire Trail or Bond Trail.

In the Southern Swan Crest area, some motorcycle users go up Sixmile Trail 10 or Wire Trail 78, and then ride south on the Alpine 7 Trail to Crevice Lake, covering 22 or 13 miles one way, respectively. A few riders may continue out on Bruce Mountain Ridge a few miles and then return; others continue further south on Alpine 7 Trail to Inspiration Pass before returning; still other motorcycle users leave from Napa Point Trailhead and ride north to Crevice Lake covering 10 miles one way, or further north on Alpine 7, and then return.

The trails of the Southern Swan Crest are also used by a two outfitters and are the site of an annual recreation event. Currently two outfitters offer overnight trips along the Swan Crest between Napa Point and Six Mile Mountain to the north. The trips provided by the outfitters (one with support, one without) generally include six to eight guests with two staff and last three to five nights. Both outfitters camp along the trail, making use of existing campsites with available water (lakes or springs); they generally make the trips during the week.

The Swan Crest Alpine Trail Number Seven 57K Run has been held in mid-September in 2006 and 2007 (Project File, Section H). The route is between the Napa Point Trailhead and the Village of Swan Lake, and makes use of the Napa Point, Alpine 7, and Six Mile Mountain Trails. The race occurs in one day, with no overnight use; about 15 to 25 runners participate with no outside support to the runners. A recreation event special use permit has been issued by the Forest Service for this event on an annual basis. Consideration of this event has been requested for upcoming years.

Generally, more types and amounts of all recreation use are occurring on National Forest lands. Overall population has been increasing. From 1970 to 2005, the populations of the United States increased by 45%, Montana increased by 34%, and Flathead County increased by 110% (U.S. Census).

### **Trail Experience**

The Flathead National Forest seeks to provide a full array of recreation opportunities. The Recreation Opportunity Spectrum (ROS) provides a framework for defining the types of outdoor recreation opportunities the public might desire, and identifies that portion of the spectrum a given area might be able to provide. The ROS ranges from Primitive (at the least developed or

wild end of the spectrum) to Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Roaded Natural, Rural, to Urban.

The Flathead National Forest Plan, as amended, established a system of ROS for the Forest. The Forest Plan identifies the three trails in the Proposed Action as located in a Semi-Primitive Motorized Area; a semi-primitive area that has the opportunity to use motorcycles. While generally allowing motorcycle use, the Management Area 2B notes that some trails in this management area would be managed for non-motorized use.

All of the following factors shape what a visitor would expect to find and experience on the Proposed Action Trails. The following description is from Appendix A – Recreation Opportunity Spectrum for the Flathead National Forest, from 1985 Forest Plan.

### ***Semi-Primitive Motorized***

#### Setting Characterization

- Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size.
- Concentration of users is low, but there is often evidence of other users.
- The area is managed in such a way that minimum onsite controls and restrictions may be present, but are subtle.
- Motorized use is permitted.

#### Experience Characterization

- Moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of woodsman and outdoor skills in an environment that offers challenge and risk.
- Opportunity to have a high degree of interaction with the natural environment.
- Opportunity to use motorized equipment while in the area.

#### Evidence of Humans' Criteria

- Natural setting may have moderately dominant alterations but would not draw the attention of motorized observers on trails and primitive roads within the area.

#### Managerial Setting Criteria

- On-site regimentation and controls present but subtle.

The Bruce Creek, Alpine 7, and Napa Point Trails in the Southern Swan Crest area currently allow the use of motorcycles. Actual use numbers for these trails are not available; however, based on field observations from Forest Service trail crews, trail managers and users, the great majority of users of these trails are non-motorized users with very limited use by motorcycle users at present. Based on the observation of Forest Service trail crews who camped along segments of the Alpine 7 Trail for 3 to 6 weeks during the summers of 2002 to 2007, we estimate approximately 2 to 4 motorcycle parties per year use the Crevice Lake to Napa Point portion of

the Alpine 7 Trail. Most visitors (motorized and non-motorized) access these trails to experience isolation from the sights and sounds of humanity, to be close to nature, and to be self-reliant in an environment that offers challenge and risk.

For motorcycle riders, many sections of the Proposed Action trails require expert skills to negotiate the steep, narrow, and rutted sections of trail. These physical challenges limit the number of riders that can reasonably traverse these trails. Most riders travel in the snow-free season in August and September, on a day with good weather, for a day-ride to experience the views, flowers/fauna, and to enjoy the challenge of the ride.

A visitors' recreation experience may be affected by sound. The Swan Crest area is considered a semi-primitive area; the sounds here are primarily natural. Human-related sounds occur less often than in the semi-modern category, last for shorter time, and are infrequent. Sound impacts are generally confined to the general area of their source. How sound and noise affects users is discussed in the following excerpt from Predicting Impact of Noise on Recreationists (USDA Forest Service 1980) (Project File, Section H).

Sound is a physical phenomenon; its magnitude can be measured. Noise is the interpretation that the magnitude of sound has reached unacceptable levels, duration, or qualities. Noise is considered just as inappropriate in a modern campground as in a remote wilderness. One individual's definition of noise might not be another's. Furthermore, definition of noise is a function of more than just loudness level. Some sounds are perceived as noise regardless of the loudness. For example, even the faint sound of a vehicle might constitute a noise in a wilderness, while in a developed, modern campground the same sound might not be noticed.

The public desires a wide range of recreation opportunities and the National Forests are available to provide a range of opportunities. However, not all opportunities can be provided in all areas since some activities and opportunities do not blend well with each other.

The many users visiting semi-primitive areas come for definite reasons. These reasons are discussed in the below excerpt from Factors Affecting Response to Noise in Outdoor Recreational Environments (Kariel 1990).

As the primary reasons for visiting outdoor recreational environments are to escape the noise of urban areas, enjoy the natural scene, reduce tension, and obtain tranquility or solitude, sounds that are felt to interfere with these experiences will be considered annoying. In this connection it should be mentioned that, since sounds are detectable, and hence identifiable, from great distances and at very low levels, even without registering on a sound-level meter, they can be intrusive and provoke reactions.

Motorized and non-motorized visitors come to these areas to enjoy the natural setting as described above. They come to enjoy the alpine setting with family and friends, to get away from town, to enjoy the scenery, and to experience the physical challenges of traveling on trails. Since noise is an interpretation of sound in a particular context or setting, the appropriateness of a sound depends upon a person's expectations for a particular setting.

The experiences of some non-motorized users are affected by motorcycles on the trails. Much of the Southern Swan Crest trails are located in open, or partially open, areas with few trees or other vegetation to provide visual and noise screening. With open areas, sound from motorcycles can carry for several miles. A non-motorized user can often hear a motorcycle coming towards them for 10-20 minutes before the motorcycle actually reaches that user. The same noise and gas fumes can impact the non-motorized user for another 10-20 minutes as the motorcycle rider continues past. When a motorcycle rider retraces his route to return to his point of origin, the slower moving non-motorized users may be impacted a second time. For many non-motorized users, this encounter with motorcycle can be a conflict or a bad experience. The sound turns into an unwelcome noise that ruins their peace and quiet and solitude, and that causes wildlife to be less visible because wildlife moves away from the noise. Additionally, gas fumes linger along the trail after the motorcycles pass. Any observed rutting of trails, tracks that go out into meadows off-trail, spin-out marks on switchbacks, and/or use of parallel trails affects the quality of the experience of the non-motorized user in this unroaded, unharvested, primarily natural, primitive alpine setting.

For the motorcycle rider, trail encounters with non-motorized users are usually brief and uneventful. When they come upon the non-motorized user, the motorized user may have to slow down or stop to let the non-motorized user move off the trail; the motorcyclist would then continue their ride. Typically, this encounter with non-motorized users does not affect the motorized users experience unless the non-motorized user yells at the motorcyclist for making noise, tearing up the trail, scaring away the wildlife, or for just being on the trail. These ‘conflict’ encounters may occur even though the motorcycle rider can legally be on these trails.

A review of both research and the comments received on this Proposed Action, it is obvious that most visitors to the Swan Crest area want to enjoy the natural experience while escaping from a more urban setting.

The fact that these trail systems are open to motorcycle use does mean that the sound of such motorized use, though infrequent, can be apparent to users of these trail systems and the areas adjacent to the trails. In terms of effects to human users of the trail systems, there would be highly variable effects to different individuals based on the intensity of motorized sounds they hear, its frequency, and the individual’s basic attitude toward motorized or non-motorized uses.

## ***Environmental Consequences***

### **Direct and Indirect Effects**

#### ***Alternative 1 (No Action)***

In the Recreation Opportunity Spectrum, the setting and types of use would remain the same. Over time, it is likely that more motorized and non-motorized use would occur on the Proposed Action trails because motorized users would likely become more aware of what routes are open to them, and due to the general increase in population of the Flathead Valley.



If such an increase in both motorized and non-motorized use were to occur on the Proposed Action trails an increase in conflict between users of different types could occur. Conflict between different user types is a well-studied phenomenon in outdoor recreation management. Different user types often have different recreation goals, along with different modes of experience, tolerance of other modes of experience or recreation goals; different norms for that experiences; different levels of problem perception; and different values and sensitivity to conflict (Manning 1999).

The number and types of visitors to the Proposed Action trails would likely change over time. As the Proposed Action trails become better known, there would be more use by expert motorcycle riders, which would also affect the non-motorized users. Kuss, Graefe, and Vaske note in *Conflicts on Multiple-Use Trails* (1990), that there are three types of strategies that trail visitors use to cope with conflict, discontent, and frustration with trail use.

- Users re-evaluate the normative definition of what is acceptable (i.e., they adapt and accept the conditions they find)
- Users change their behavior (e.g., use less frequently, use at off-peak times)
- Users are displaced altogether (i.e., conditions are unacceptable to them, so they stop the activity or stop visiting the area)

In short, it can be expected that some non-motorized users may continue to be negatively affected by the presence of motorcycles along the Proposed Action trails. Recreationists often employ a variety of coping behaviors in response to such perceived conflict or trail experiences that do not jive with their expectations (Hall and Cole 2007)

It is reasonable to assume that under Alternative 1 some users of the Proposed Action trails may experience conflict or less-than-satisfactory recreational experiences and in turn may modify their use of the trails or their view of the experience. As the use of these trails by non-motorized users is low to moderate and very low by motorized users these effects are expected to be minor.

### ***Alternative 2 (Proposed Action)***

In the Southern Swan Crest area, where the Proposed Action is located, there are 109 total miles of trail; 40 miles would remain open to motorcycles and 69 miles would be closed to motorcycle use were the Proposed Action to be implemented.

In the Southern Swan Crest, the reduction in number of miles of trail open to motorcycles may affect mostly expert motorcycle riders. They would have 20 fewer miles of trail to experience in this mostly alpine setting. Currently, the Swan Lake Ranger District estimates that 2 to 4 motorcycle parties per year occur on the Alpine 7 portion of the Proposed Action Trails. Forest Service observations indicate that motorcycle use is currently very low. Some or all of this use might shift to the remaining 40 miles open to motorcycle use in the Southern Swan Crest, elsewhere on the Forest, or to other public or private land available for such use if these trails are closed to motorized use.

Motorized and non-motorized users were both concerned as to how much of the actual Alpine 7 Trail would be left open to motorized and non-motorized use. For the Southern Swan Crest area, the Alpine 7 Trail currently has all 25 miles open to motorcycles. The Proposed Action (Alternative 2) would leave 18 of 25 miles of the Southern Swan Crest section of the Alpine 7 Trail open to motorcycles, allowing access to the higher elevations of the Swan Crest area.

For the non-motorized, foot, mountain bike, and stock users, the Proposed Action (Alternative 2) would provide a quieter, non-motorized experience on the Bruce Creek Trail, the Alpine 7 Trail from Crevice Lake south to Napa Point, and on the Napa Point Trails. A quiet and solitude experience would exist for those users that access the Wilderness and walk or ride stock to Sunburst Lake from the Napa Point Trailhead. Those non-motorized users who wanted to gain access to a relatively high elevation Napa Point Trailhead at 6,400 feet and then be able to access the Alpine 7 Trail outside of wilderness would be able to do so without motorized use impacts.

Prohibiting motorcycle use on the Proposed Action Trails would reduce maintenance and potential erosion problems on the portions of the Alpine 7 trail with steep, tight switchbacks. In addition, it would eliminate the potential for future user conflicts in the steep and narrow sections of the Napa Point trail, where current use is moderately high with very little of that use being motorized at present.

Non-motorized users could travel the Bruce Creek Trail up to the Alpine 7 Trail and not have the sounds of motorized vehicles intrude. Non-motorized users wanting a quieter experience could travel up Bruce Creek to Crevice Lake, and then travel south to Napa Point to exit or retrace their steps to avoid the motorcycle noise. Motorcycle riders could continue to access Crevice Lake from the north on the Alpine 7 Trail.

Bruce Creek Entry Trail 82A, Bruce Creek Trail 82, Bunker Creek Trail 101, and Bunker-Alpine Connect Trail 101A are all low-use trails currently. They receive occasional use by foot, stock, mountain bike and motorcycle use. The use on the Alpine 7 Trail from Crevice Lake south toward Napa Point becomes moderate the last few miles before the junction with the Napa Point Trail. The Napa Point Trail has moderate use and the highest overall use of the trails in the Southern Swan Crest area. The Proposed Action (Alternative 2) would only allow non-motorized recreational of use on these trails. Less erosion would occur on the steeper pitches without motorcycle use. Where the trail is trenched, some foot, stock, and mountain bike users would still make some parallel trails beside the trenches; the impacts from non-motorized users could continue. Since the Bruce Creek Trailhead is still a relatively remote trailhead, it is likely this would remain a low-use trail by non-motorized users.

The Proposed Action would change the existing situation to only allow non-motorized access to these 20 miles of trail. A user of these trails would have less expectation of a motorized encounter. It is expected that non-motorized users could have a more positive experience. Motorized users would not be able to access to the high elevation trailhead and trails as described.

The non-motorized visitor's experience would change from a moderate to a high probability of experiencing isolation from the sights and sounds of humans, closeness to nature, and tranquility. Without motorized activity, the evidence of humans would be more subtle.

Since motorcycle riders would lose access to these trails under the Proposed Action, they would not be able to use and experience these exact trails. Some long time visitors could have a sense of loss of access to these particular places with specific views and memories.

### **Cumulative Effects**

The cumulative effects area was determined to be the non-wilderness areas that are immediately accessible to the Flathead Valley on the Flathead National Forest that offer more challenging, alpine trail experiences.

In the past few years within the Swan Crest, approximately 39 miles of trail has been closed to motorcycle use (no other motorized use was authorized).

A total of 259 miles of trail currently exists in the entire Swan Crest area. Implementing the Proposed Action would leave 92 miles open to motorcycle use and 167 miles closed to motorcycle use. In the Southern Swan Crest area, where the Proposed Action is located, there are currently 109 total miles of trail, 40 miles of which would remain open to motorcycles and 69 miles of which would be closed to motorcycle use (Table 5).

**Table 5. Miles of Swan Crest Area Trails Open and Closed to Motorcycle Use by Alternative**

Swan Crest Area	Alternative 1		Alternative 2	
	Open Trails (miles)	Closed Trails (miles)	Open Trails (miles)	Closed Trails (miles)
<b>Northern</b>	52.13	10.53	52.13	10.53
<b>Central</b>	0.0	87.16	0.0	87.16
<b>Southern</b>	60.19	49.06	40.5	68.75
<b>Total</b>	<b>112.32</b>	<b>146.75</b>	<b>92.63</b>	<b>166.44</b>
<b>Change</b>	<b>0</b>	<b>0</b>	<b>-19.69</b>	<b>+19.69</b>

Considering the entire Swan Crest area, the whole Alpine 7 Trail currently has (Alternative 1) 39 of 54 total miles open to motorcycles. The Proposed Action (Alternative 2) would leave 32 of 54 total miles of the entire Alpine 7 Trail open to motorcycles, allowing access to the higher elevations of the Swan Crest area.

There has been a low amount of use by motorcycle riders on the Northern Swan Crest and Southern Swan Crest trails for many years. Most of these same areas, except for Napa Point Trail, also receive low amounts of non-motorized use. After the implementation of this Proposed Action (Alternative 2), the 92 miles of trail remaining open to motorcycle use in the entire Swan Crest area would likely receive a somewhat higher concentration of motorcycle use by expert

riders. This may negatively affect the experiences of some non-motorized users in these areas using trails where motorized use is allowed. It is difficult to assess if the minor increase in use on trails, of 2 to 4 additional motorcycle groups a year, where motorized use already occurs would be readily apparent to non-motorized users, but some limited potential for this does exist. Motorcycle riders would have 20 fewer miles of trail that they would be able to ride in the entire Swan Crest area. They would not be able to ride/utilize and enjoy these 20 miles of trail, but would still be able to ride the remaining 92 miles of open trail in the entire Swan Crest area.

The limited amount of current motorcycle use of the Proposed Action trails displaced onto the remaining forty miles of motorized trails in the Southern Swan Crest area could cause a proportionate increase in noise impacts to the non-motorized users on motorized trails, thus impacting their solitude. On the trails remaining open to motorized use, increased wear of the trails proportionate to the limited amount of motorcycle trips displaced might occur on the trails remaining open to motorized use. This small percentage of increased use would be difficult to quantify in terms of impacts.

### ***Regulatory Framework and Consistency***

The Forest Plan, as amended, established Forest-wide Standards for recreation that relate to the Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project. Listed here are the standards that provide the framework for managing recreation resources: (P. II-21)

- Use the Recreation Opportunity Spectrum as a guide to provide the full array of recreation opportunities on the Forest.
- Encourage Forest visitors not desiring a wilderness setting to use nonwilderness National Forest System lands which can provide for recreation needs.

The Proposed Action would meet these three Forest Plan Management Area (MA) prescriptions described below.

MA 2B Standards note that while providing motorized access opportunities, some trails will be maintained for non-motorized use. Permit but do not encourage motorized use of trails. Motorized use would not be allowed on Trails 82, 101, 101A, 7, and 31 and this would meet the MA standard of not providing or encouraging motorized use on all trails in this MA.

MA 15 Closing Trail 82A to motorized use would not interfere with potential timber management objectives assigned to this MA.

For MA 11A Most of the miles of the Proposed Action trails form the western and northern boundary of this management area. Closing these trails to motorized use would better provide for security from human conflict through closures of existing roads and trails as necessary to maintain the grizzly bear security of the area. Trails may be closed if necessary to meet resource management objectives or protect the facility and/or other resource.

## **INVENTORIED ROADLESS AREAS**

### ***Analysis Area***

The trails proposed for motorized use closure are included in a portion of the Bear-Marshall-Scapegoat-Swan Inventoried Roadless Area (IRA) 1485, an area that totals 866,330 acres. These trails are located in a subunit of this much larger IRA, known as the Swan Front SF485 IRA, totaling 141,990 acres. This smaller IRA subunit extends from Sixmile Mountain south to the Holland Lake area (Map 4). All of the Proposed Action trails are located in the Swan Front IRA, except for the Bruce Creek entry road and the very beginning of the Bruce Creek Trail.

The Bruce Creek to Alpine 7 to Napa Point Motorized Trails Project area within the Southern Swan Crest area (Map 1) and within the Swan Front IRA served as the analysis area to disclose the effects of the existing situation and the Proposed Action on inventoried roadless area lands. Information for this analysis was gathered from the Flathead National Forest GIS database and on-the-ground knowledge of the area. The Region One “Guidance for Analyzing and Documenting Effects of Proposed Actions on Roadless Characteristics and Wilderness Features of Roadless Areas” was used as a format for this analysis.

### ***Affected Environment***

When considering effects of projects on inventoried roadless areas, 6 roadless characteristics were considered: Natural Integrity, Apparent Naturalness, Remoteness (these first three relate to the physical setting of an area), Solitude, Special Features, and Manageability and Features.

#### **Natural Integrity**

This characteristic is the extent to which long-term ecological processes are intact and operating. Impacts to natural integrity are measured by the presence and magnitude of human induced change to an area. Such impacts include physical developments (e.g. roads, utility-rights-of way, fences, lookouts, and cabins), recreation developments, domestic livestock grazing, mineral developments, wildlife/fisheries management activities, vegetative manipulation, and fire suppression activities.

- The IRA is a narrow area 2 to 7 miles wide and runs for about 40 miles along the Swan Crest. The IRA has complete natural integrity except for the Proposed Action trails and other trails in the IRA. These constructed trails are a minimal impact on the landscape.

#### **Apparent Naturalness**

This characteristic means that the environment looks natural to most people using the area. It is a measure of importance of visitors' perceptions of human impacts to the area. Even though some of the long term ecological processes of an area may have been interrupted, the landscape of the area generally appears to be affected by the forces of nature. If the landscape has been

modified by human activity, the evidence is not obvious to the casual observer, or it is disappearing due to natural processes.

- The Proposed Action trails look natural and part of the landscape to visitors. The Proposed Action trails and associated parallel trails are small amounts of visible human activity; they generally do not excessively detract from the overall naturalness of the area.

### **Remoteness**

This characteristic is a perceived condition of being secluded, inaccessible, and out of the way. The physical factors that can create ‘remote’ settings include topography, vegetative screening, distance (sight and sound) from human impacts such as roads and logging operations, and difficulty of travel. A user's sense of remoteness in an area is influenced by the presence or absence of roads and motorized vehicles, and the road condition.

- Motorcycle users may experience a sense of remoteness in this setting as they are removed from roads and see few other motorcycle and non-motorized visitors. Non-motorized users may feel the same remoteness from roads, but the sights and sounds of occasional motorcycle riders may have the affect of diminishing their overall sense of remoteness.

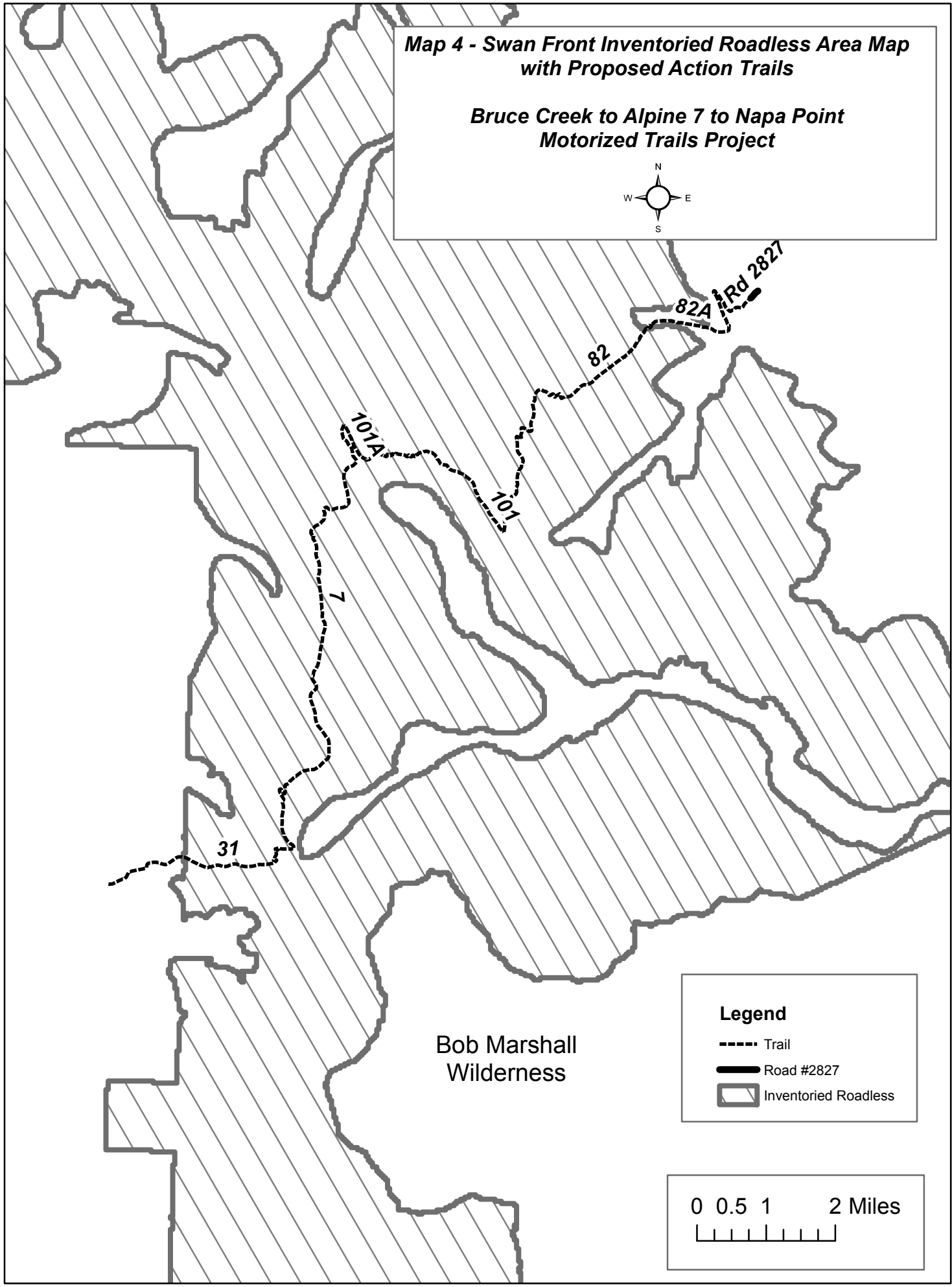
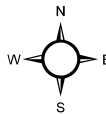
### **Solitude**

This characteristic is a personal, subjective value defined as isolation from the sights, sounds, and presence of others, and from the developments of man. Common indicators of solitude are numbers of individuals or parties one may expect to encounter in an area during a day, or the number of parties camped within sight and sound of other visitors. A primitive recreation experience includes the opportunity to experience solitude, a sense of remoteness, closeness to nature, serenity, and spirit of adventure through the application of woodsmen skills in an environment that offers a high degree of challenge and risk.

- A few hunters currently ride horses, walk, or ride mountain bikes up the closed Bruce Creek Entry Trail 82A, and travel up the Bruce Creek Trail for 2 to 3 miles in the spring and fall. The Alpine 7 and Napa Point Trails have a similar situation. With the low amount of overall users on the Proposed Action trails, motorcycle riders may experience a sense of solitude. Non-motorized users may also experience a sense of solitude; however, their experience may be affected by the anticipation of an encounter with motorized users, or by an actual encounter.




**Map 4 - Swan Front Inventoried Roadless Area Map  
with Proposed Action Trails**

**Bruce Creek to Alpine 7 to Napa Point  
Motorized Trails Project**



Bob Marshall  
Wilderness

**Legend**

-  Trail
-  Road #2827
-  Inventoried Roadless



**Back of Map 4**



### **Special Features**

These characteristics are those unique geological, biological, ecological, cultural, or scenic features that may be located in roadless areas. Unique fish and wildlife species, unique plants or plant communities, potential Research Natural Areas, outstanding landscape features such as unique rock formations, and significant cultural resource sites are some of the items that should be considered when analyzing this element.

- While the Proposed Action trails are located in an alpine setting with impressive views at an elevation of 6,000 to 7,000 feet, no special or unique features were identified.

### **Manageability and Boundaries**

This element relates to the ability of the Forest Service to manage an area to meet size criteria and the five elements discussed above. Changes in the shape of an area influence how it can be managed. If broken into narrow corridors, or small islands interspersed with areas of non-conforming management practices, many of these 6 elements may be compromised. To meet the requirements of size, an area must be at least 5,000 acres. This is an especially important element to address if a proposed action would essentially road the interior of a small roadless area.

- The IRA is about 2 to 7 miles wide and runs for 40 miles along the Swan Crest. The Swan Front IRA is 141,990 acres. This area could be reasonably managed as inventoried roadless lands or as wilderness.

Special values of inventoried roadless areas will also be analyzed. These values are often difficult to quantify, as they are subjective values from people who have certain feelings about these special areas.

- The Proposed Action trails are used as fairly short and easy access to alpine areas outside of wilderness. The area generally has low use, good views, and is a spectacular setting during its short snow-free season (August and September). There is a variety of threatened and endangered species in the area, including grizzly bears, lynx, and wolves.

### ***Environmental Consequences***

The undeveloped resource characteristics considered for effects analysis in this project include the following.

- Natural integrity
- Apparent Naturalness
- Remoteness
- Solitude
- Special features
- Manageability and Boundaries

## **Direct and Indirect Effects**

### *Alternative 1 (No Action)*

No management activities are proposed in Alternative 1; therefore, there would be no direct or indirect effects from project activities within the IRA. Natural processes would continue to occur without much human intervention although existing man-made features in the IRA would remain. Motorcycle riders would continue to experience solitude on the Proposed Action trails. Non-motorized users may continue to experience similar experiences of solitude, or they may continue to be affected by motorized use.

### *Alternative 2 (Proposed Action)*

#### Natural Integrity, Apparent Naturalness, Remoteness

Removing the occasional motorcycle users would add to the overall natural integrity, apparent naturalness, and remoteness of the IRA. The removal of motorized use would affect visitors' impression of natural integrity, naturalness, and feeling of remoteness in these alpine areas.

#### Solitude

The few hunters, who currently ride horses, walk, or ride mountain bikes up the closed Bruce Creek Trail in the spring and fall, would likely continue to do so under the Proposed Action. There would be similar affects on the Alpine 7 and Napa Point trails. Prohibiting motorcycle use of these trails would remove a small segment of the current use. With the absence of motorized use on the trails, the remaining users would have an increased feeling of solitude. This Proposed Action would exclude motorized use on about 19.7 miles of trail, thus enhancing the solitude experience for non-motorized users.

#### Special Features

These trails currently access inventoried roadless alpine country from 6,600 to 7,600 feet in elevation, and this would stay the same.

#### Manageability and Boundaries

The Proposed Action would designate these trails as non-motorized, which would aid in the ease of managing these roadless lands in the Southern Swan Crest, between the Swan Lake and Spotted Bear Ranger Districts, as non-motorized alpine backcountry.

## **Cumulative Effects**

Access to this high-elevation alpine area would be eliminated for motorized users on the approximately 19.7 miles of trail closed to motorcycle use under the Proposed Action. As a result, all trails in the Swan Front IRA, from Crevice Lake south to the Bob Marshall Wilderness boundary, would be closed to motorcycle use. From Crevice Lake north in the

Southern Swan Crest area, there would be 40 miles of trails open to motorcycle use. Except for the very northern portion of the Swan Front IRA, the area would be closed to motorcycle use. Closing the Proposed Action trails to motorcycle use would enhance the suitability of this portion of the IRA to become unroaded backcountry or Congressionally-designated wilderness.

### ***Regulatory Framework and Consistency***

There is no national direction (e.g. FSM, FSH, or other Forest Service policy) that affects allowing motorcycle trail activities within IRAs. The current Flathead Forest Plan does not have specific IRA direction. Instead, direction is provided through Management Area direction (specific areas across the Forest that are differentiated by goals, and resource potential and limitations). The MAs for the Proposed Action trails within the IRA are MA 11 (grizzly bear habitat) and MA 2B (semi-primitive motorized, that also allows for non-motorized trails). As such, the Proposed Action of closing these trails to motorcycle use meets current Forest Plan direction.

## **WILDLIFE**

### ***Threatened, Endangered, and Sensitive Species***

Multiple wildlife species would be expected to benefit from the Proposed Action through increased habitat security. Although the current level of motorized trail use is low, motorized trail use has steadily increased in Montana in recent decades (Canfield et al. 1999). Without implementation of the Proposed Action, motorized use of these trails could remain low, or could increase over time, resulting in increased disturbance to and reduced habitat security for wildlife. Potential effects analyzed for this proposal relate to increased habitat security for each species, as no changes to vegetation are proposed with this project.

The recreational activity of primary emphasis in this wildlife analysis is motorized trail use; it is beyond the scope of this analysis to consider in detail the direct effects of other recreational activities to wildlife. Other recreational activities in the project area may impact wildlife; and public comments have expressed concerns regarding the effects of these activities (primarily hiking and camping). Changes in these types of activities are not proposed by this project, but effects from these activities are discussed here in terms of their influence on the effected environment, and/or when they are expected to have a cumulative effect with the Proposed Action. Additional information about other recreational activities occurring in the project area can be found in the Recreation section of this document.

Site-specific and general wildlife habitat information was used to analyze the potential effects of this proposal and was drawn from local and regional studies, past project analyses, species observation data, GIS data, photo interpretation, field observations of trail segments and surrounding habitat, and discussions with other local biologists familiar with the trails and the area. Potential effects to wildlife are summarized here, with detailed information available in the Project File.

## **Grizzly Bear (Threatened)**

### ***Analysis Area***

A grizzly bear subunit is an area that approximates the size of a female's home range (~30-50 mi<sup>2</sup>) and is commonly used to analyze the status of habitat security for grizzly bears. The six grizzly bear subunits containing the trails proposed for motorized restrictions were used to analyze direct, indirect, and cumulative effects; these included Ball Branch, Bunker Creek, Goat Creek, Jungle Addition, South Fork Lost Creek, and Swan Lake (Table 6 and Map 5). The subunit is the scale of analysis typically used to assess impacts to grizzly bears and the Proposed Action would restrict motorized trail use in all six subunits. Furthermore, Forest Plan Amendment 19 (A19) standards for access density and habitat security (discussed further in the following sections) are applied and evaluated at the subunit level.

### ***Affected Environment***

These subunits are all within the Northern Continental Divide Ecosystem (NCDE), and trail segments included in the Proposed Action are within Flathead National Forest (FNF) Management Situation 1 (areas needed for the survival and recovery of grizzly bears; management actions will favor the needs of the species). The Forest Plan contains standards that are to be met by proposed management activities. These subunits are all within the study area of Mace and Waller's ten-year grizzly bear ecology study, referred to by the authors (and herein) as the "South Fork Project" (Mace and Waller 1997).

Perhaps the two most influential habitat issues that affect the well-being of grizzly bears in the analysis area include the amount of private lands and the amount of habitat security available to grizzly bears (Mace and Waller 1997; Claar et al. 1999). The private lands are mostly in rural areas and occur primarily in the Goat Creek and South Fork Lost Soup grizzly bear subunits.

These six subunits occur within the Swan Mountain Range, with the South Fork Flathead River to the east and the Swan Valley to the west. The community of Swan Lake is located within the Swan Lake subunit and Highway 83 runs through the western portions of the Swan Lake, South Fork Lost Creek, and Goat Creek subunits - all of which contain private development and varying amounts of state and private timber lands. The Jungle Addition and Bunker Creek subunits are adjacent to the South Fork Road #38 (Map 5), and contain the Spotted Bear Ranger Station, and three local guest ranch operations (Wilderness Lodge, Spotted Bear Ranch, Diamond R). Front- and back-country recreational activities occur throughout the analysis area, including snowmobiling, hunting, fishing, hiking, camping, and berry-picking

A majority of the roads in these subunits were created, beginning in the 1940s, primarily to access timber (Mace and Waller 1997). Many historic roads, as well as most recent roads created for timber harvesting activities, have been closed and/or decommissioned; although some remain open (see motorized access section below). Trails are present in each subunit (Map 5). In addition to the earlier-mentioned presence of private land, human settlement, general recreation, and motorized access routes, multiple activities and events have influenced grizzly bear habitat and behavior in these subunits and together have shaped the affected environment,

positively and negatively. These include, but are not limited to, timber harvesting activities, establishment of developed recreation sites, and gathering of forest products. These activities and others are discussed in further detail in the Project File (Exhibits J-1, J-3, & J-6) and in analysis documents for past projects that included portions of the project area, such as the Spotted Bear Vegetation and Fuels Project EA (1998); the Spotted Beetle Resource Management Project EA (2001); and the Westside Reservoir Post-fire Project FEIS (2004).

### **Motorized Access**

Motorized access densities within the subunits are displayed in Table 6, and are important considerations in assessing habitat quality for grizzly bears. This was recognized by the 1986 Forest Plan and by Amendment 19 of the Forest Plan, which addresses grizzly bear habitat security. The U.S. Fish and Wildlife Service (FWS) in their Biological Opinion (BO) for A19 (US Fish and Wildlife Service 1995) and their BO for a revised A19 implementation schedule (U.S. Fish and Wildlife Service 2005) put forth 'Terms and Conditions' with which the FNF was required to comply. The biological judgment of the FWS was that 'harm' of grizzly bears is likely to occur when the open motorized access density (OMAD) exceeds 19% of a subunit, when the total motorized access density (TMAD) exceeds 19% of a subunit, or when security core is less than 68% of a subunit.

The Forest Service and FWS have concurred that site-specific information can be used to change A19 objectives within individual subunits (US Fish and Wildlife Service 2004), as was done in the West Side Reservoir and Moose Post-fire Projects, through project specific amendments without jeopardizing the NCDE grizzly bear population. Compliance with the above-listed standards is required within non-amended subunits, as directed by A19 and required by the Terms and Conditions of the FWS BO on A19 (US Forest Service 1995). Where Forest Service ownership is less than 75%, the direction is no net increase in road densities. The Jungle Addition and Swan Lake grizzly bear subunits currently do not fully meet A19 standards.

Changes in OMAD, TMAD, and security core percentages (due to mapping corrections, differences in mapping methods, and actual changes in road and trail access) have occurred for multiple subunits from 2002 to 2007. These changes are stated in A19 reports for each year (see Project File). Other than discussions for Jungle Addition, only existing densities (obtained through project-specific GIS analysis) and densities resulting from the Proposed Action are discussed here (Table 6). Any differences between table values here and values reported in the 2006 A19 Report are due to mapping corrections and post-2005/2006 travel changes.

Although motorized densities are an important factor in assessing habitat quality for grizzly bears, the arrangement of motorized routes and the arrangement of resulting security core are also extremely important considerations. In the case of the analysis area used here, the trails included in the Proposed Action bisect security core to create three non-contiguous sections of core within the analysis area. If not for current motorized use, there would be contiguous security core extending from the Swan Mountains into the Bob Marshall Wilderness. Although these trails currently receive low-levels of motorized use, motorized trail use has steadily increased in Montana over past decades (Canfield et al. 1999) and there is currently no mechanism for maintaining a particular level of use on these trails.

### ***Jungle Addition Subunit***

As of September 2001, the Jungle Addition subunit did not meet A-19 standards for OMAD, TMAD, or security core. Under the 2002 Spotted Beetle Resource Management Project Decision, the subunit was to be brought into compliance through road closures. After road closures, the subunit was considered to be in compliance with A19 until preparation of the 2002 and 2003 A19 monitoring reports. At that time changes were made in moving windows analysis by Flathead National Forest biologists and line officers, to consider motorized trails receiving low-levels of use (which were previously not counted) in motorized access monitoring. The change was summarized in the BO on the affects of the Flathead National Forest Plan Amendment 19 Revised Schedule as follows (U.S. Fish and Wildlife Service 2005):

- Due to the difficulty of monitoring motorized use of all trails, trails without closure orders during the non-denning period and receiving motorized use were added to the motorized access inventory. The addition of these trails to the motorized access baseline is a more conservative approach than previously implemented. Many of the trails receive low, infrequent use but are included in open route densities. In addition, only secure polygons larger than 2,500 acres were considered in the core calculations.

### ***Swan Lake Subunit***

This subunit contains many roads that access private and other non-Forest Service Lands. Each management activity in this subunit has improved or attempted to improve grizzly bear security and efforts to improve the overall situation are ongoing on the Swan Lake district.

### ***Environmental Consequences***

The major issues facing grizzly bears in the analysis area involve human settlement and access management. The Proposed Action would address the latter of these two issues.

Public comment regarding grizzly bears primarily involved concerns regarding 1) grizzly bear security, 2) relationships between grizzly bears, roads, and varying types of trail use, 3) comparative impacts of recreational use types, 4) grizzly bear population levels, and 5) general disturbance related to motorized use. Since the proposed project addresses a change in allowable motorized trail use, the direct and indirect effects analysis pertains to this particular proposed change, with effects or potential effects of additional types of trail use discussed in the Cumulative Effects section, as applicable (as for other species). Open motorized access density (OMAD) and security core were the primary indicators used to assess effects to grizzly bears for this proposal.







## **Direct and Indirect Effects**

Since few studies are available that directly assess the affects of motorized trails to grizzly bears, managers must draw inferences from studies primarily focused on the effects of roads and/or vehicle noise. Although motorized trails may receive less use and reduce less cover than roads, they are also a source of noise and disturbance and are also considered to influence habitat selection by grizzly bears (and are thus included in calculations of motorized access baselines, as discussed earlier). As summarized by the FWS (2004) “Even occasional human-related vehicle noise can result in annoying bears to the extent that that they continue to avoid roads.” A premise for the following discussions (and for current management direction) is that this avoidance is considered to extend to motorized trails as well.

### ***Alternative 1 (No Action)***

Under this alternative, the overall habitat condition and A19 road and motorized trail densities would not change (Table 6). As discussed above, 2 subunits currently do not meet A19 objectives (Jungle Addition and Swan Lake), and the remaining four currently meet or exceed objectives. Security core in the subunits would remain bisected by these trails. Continued motorized disturbance has the potential to limit or continue to limit the amount of habitat used by bears in the analysis area, and to limit the extent of use of habitats adjacent to the trails. As mentioned earlier, trails may receive less use and reduce less cover than roads, but they are also considered to influence habitat selection by grizzly bears. The effects of motorized trails are thus likely linked to factors such as the quality of habitat bisected by trails, local seasonal use of those habitats, time of day, and locations of established home ranges, as all may impact the level of avoidance of, or habitat use near, roads (Claar et al. 1999; Mace and Waller 1997; McLellan and Shackleton 1988). These trails are within, and adjacent to, valuable seasonal habitat features such as shrub fields and avalanche chutes. Even valuable habitat may be avoided due to vehicular disturbance (Mace and Waller 1997; US Fish and Wildlife Service 2004), so that the availability of these features may be reduced by current motorized use.

This alternative would not limit future use levels of these trails. If trail use (particularly motorized, but non-motorized as well) were to increase over time, habitat value for grizzly bears would be expected to further decrease.

Uncertainty remains regarding precise levels of motorized use grizzly bears would tolerate before selecting against a particular area. The most applicable current research maintains that bears utilized areas with minimal vehicular disturbance at all landscape scales (Mace and Waller 1997).

### ***Alternative 2 (Proposed Action)***

As for the no action alternative, non-motorized trail use may increase, which could decrease habitat value for grizzly bears. However, closing the trails to motorcycle use would benefit grizzly bears in the analysis area by reducing disturbance to grizzly bears in all subunits. The proposed action would move the Swan Lake and Jungle Addition Subunits closer to A19 compliance and further improve grizzly bear habitat in the four subunits (Ball Branch, Bunker

Creek, Goat Creek, and South Fork Lost Soup) that already meet or exceed A19 standards (Table 6). The three non-contiguous patches of security core described earlier (see Affected Environment) would become contiguous security core extending into the Bob Marshall Wilderness. Overall disturbance to bears would decrease and any current avoidance of these trails would be expected to decrease.

**Table 6. Amendment 19 Density Parameters by Alternative**

Subunit	Alternative 1 (Existing Situation)			Alternative 2 (Proposed Action)		
	%OMAD <sup>1</sup>	%TMAD <sup>2</sup>	% Core <sup>3</sup>	% OMAD	% TMAD	% Core
<b>Subunits with &gt; 75% NFS Lands</b>						
<b>Swan Lake</b>	41	26	45	40	26	46
<b>Ball-Branch</b>	12	8	79	8	8	82
<b>Jungle Addition</b>	29	19	60	21	19	66
<b>Bunker Creek</b>	12	4	85	6	4	92
<b>Amendment 19 Standards</b>	≤19	≤19	≥68	≤19	≤19	≥68
<b>Subunits with &lt; 75% NFS Lands</b>						
<b>South Fork Lost Soup</b>	32	44	38	25	44	43
<b>Goat Creek</b>	25	60	35	23	60	37
<b>Amendment 19 Standards</b>	No net increase	No net increase	No net decrease	No net increase	No net increase	No net decrease

<sup>1</sup>OMAD is Open Motorized Access Density

<sup>2</sup>TMAD is Total Motorized Access Density

<sup>3</sup>Security Core

Note: The 2002 Spotted Beetle Resource Management Project Decision included a schedule for bringing the Jungle Addition Subunit into A19 compliance through road closures, but changes in OMAD calculation (the inclusion of motorized trails, as discussed in the Jungle Addition section below) brought the OMAD density back up above A19 standards. These numbers reflect access changes implemented related to that decision. Differences in these table values from the 2005/2006 A19 Reports are due to mapping corrections and post-2005 travel changes—these numbers reflect a GIS moving window analysis for the 6 subunits carried out during the summer of 2007.

Decreasing motorized access is considered to increase habitat security for grizzly bears (U.S. Fish and Wildlife Service 1993; U.S. Forest Service 1994; Claar et al. 1999) as repeated studies have shown negative impacts of roads to grizzly bears (Elgmork 1978; McLellan and Shackleton 1988; Mace and Waller 1997). Results reported by Mace and Waller (1997) suggest that grizzly bears can persist in areas with roads, but that spatial avoidance would increase and survival would decrease with increases in; a) road densities, b) traffic levels, and c) human settlements. Again, current management direction includes motorized trails as contributing to spatial avoidance by bears as well.

This proposed change could be especially beneficial to bears in the western subunits, where scouring by the Flathead Glacier resulted in an abrupt transition between the Swan Mountains and valleys to the west. According to Mace and Waller (1997), “this abrupt fault-line scarp affords little topographic separation between mountain grizzly bear habitat and valley habitats occupied by humans.” Bears using habitats near the Swan Valley have experienced mortalities

and relocations over time resulting from food rewards and habituation to humans. Contiguous core adjacent to this challenging landscape could assist bears in traveling south into the wilderness.

### **Cumulative Effects**

Activities with effects potentially overlapping effects from this project are those that have changed, or are anticipated to change, access densities within the cumulative effects analysis area and those that have affected the quality of habitat in the subunits these trails bisect. Activities listed in Table 4 were considered for cumulative effects to grizzly bears, and those with effects potentially overlapping (in time and space) with the effect of this project are summarized here. Rationale regarding the remaining items is given in the Project File.

#### ***Alternative 1 (No Action)***

There would be no effect to A19 access densities through this alternative. The relative modeled availability of secure core habitat for grizzly bears would not change; current motorized use removes the areas containing these trails from mapped security core regardless of level of use (since use levels are not regulated). Motorized use of these trails would be expected to continue and use could increase over time. If increased motorized trail use leads to increased disturbance to grizzly bears over time, habitat value could potentially decrease in the area (as bears could be displaced or continue to be displaced). Continued and/or increased motorized disturbance near these trails would be cumulative to increased disturbance through potential increases in non-motorized trail use, and to the other forms of human disturbance and settlement described in the Affected Environment section. No other direct or indirect effects to grizzly bears were expected through this alternative.

#### ***Alternative 2 (Proposed Action)***

##### **Access Density**

Activities that have affected (and/or currently affect) motorized access within the analysis area, such as temporary and permanent road building, road decommissioning, road closures, road and trail use restrictions, and current motorized road and trail use, are inherently accounted for as part of the A19 access density baselines for these subunits. Activities that have increased access to the subunits are presumed to have negatively impacted grizzly bears in these subunits. Alternately, progress in all subunits toward meeting A19 standards has positively influenced grizzly bear habitat in these subunits; particularly reductions in motorized use of roads and trails within the analysis area.

The Proposed Action would have a positive cumulative effect to actions that have affected the TMAD, OMAD, and security core baselines, as displayed in Table 6.

### Habitat Quality

Private, corporate, and/or State lands occur within 3 of the 6 subunits that make up the analysis area - Swan Lake, South Fork Lost Soup, and Goat Creek. Private lands have been and would continue to be developed in these areas and state and private lands have been harvested for many years. Some private timberlands in the area have been sold for residential development and additional sales of this type are expected in the future. These actions together (timber harvest and private development) have reduced the quality/suitability of the area for grizzly bear, particularly where habitat is fragmented by human development, but also where timber harvest may not mimic natural disturbance in its scale and frequency.

Within the FNF lands in the analysis area, timber harvest that has added to habitat diversity and introduced or maintained early seral stands, especially where natural diversity has been reduced by fire suppression, may have had positive effects for bears over time. There are 31 designated recreation sites within or bordering the FNF portion of the analysis area, including the Spotted Bear Ranger Station, the three guest ranch operations, dispersed campsites, campgrounds, river access sites, and trailheads. Since there is potential for conflict at each site, especially if attractants are not properly stored, the overall presence of these sites reduces habitat quality for bears.

Considering all these factors, the Proposed Action would be expected to have a positive cumulative effect to grizzly bear habitat quality by improving grizzly bear security.

### ***Regulatory Framework and Consistency***

The existing condition, in terms of motorized access, does not meet A19 grizzly bear habitat standards for the Swan Lake and Jungle Addition Subunits. The Proposed Action would move both of these two subunits closer to A 19 compliance (Table 6). The effects of the Proposed Action would be consistent with Forest Plan Standards, and Interagency Grizzly Bear Guidelines (1987). Endangered Species Act (ESA) informal consultation has been completed between the Flathead National Forest and the U.S. Fish and Wildlife Service (USFWS) for this proposed project (Exhibits J-6 and J-7). The Endangered Species Act (ESA) determination for this project was based on positive effects of this proposal in combination with the existing baseline (which includes two subunits that are not A19 compliant).

## **Gray Wolf (Endangered)**

### ***Analysis Area***

The gray wolf analysis area for direct and indirect effects includes watersheds containing the nearest collared wolf locations to the trail and the locations near the closed road connecting the trail to the Spotted Bear Ranger Station administrative site, plus watersheds or portions of watersheds surrounding the trails proposed for reductions in motorized use. This analysis area is intended to include the steep slopes and stream heads associated with high elevation habitat features valuable to ungulates (See Exhibits J-3 & J-6). The analysis area for cumulative effects

to wolves encompasses additional drainages surrounding the trail and drainages associated with the South Fork Flathead River for which collared wolf location data shows concentrated use (See Exhibits J-3 & J-6).

### ***Affected Environment***

The project area is within habitat that was designated in the FNF Forest Plan as Management Zone 1 (contains key habitat components in sufficient abundance and distribution on an annual basis to sustain a viable wolf population) (Forest Plan page II-43) and is in the Northwest Montana Recovery Area. The project area is closest to and overlapping a central segment of the home range of the Spotted Bear pack, comprised of four wolves (U.S. Fish and Wildlife Service, et al. 2007). The analysis areas for wolves are within the analysis area for bears, for which the affected environment was described earlier (see Grizzly Bear Affected Environment).

There are no Forest Plan standards for road density or vegetation cover related to habitat security for gray wolf habitat. Forest Plan standards for wolf protection relate primarily to logging activities, disturbance to prey base, and activities impacting mortality risk or key habitat features (see Project File Exhibits J-3 & J-6). Security related standards for grizzly bears (A19) are likely to benefit wolves as well.

Wolf mortality has been a factor in the Northwest Montana Wolf Recovery area. The only open roads in the analysis areas for direct, indirect, and cumulative effects to wolves are on the far east and far west ends, but the east end includes well-traveled Forest Service East Side Reservoir Road # 38, and West Side Reservoir Road #895. Livestock grazing in the analysis area occurs in association with Spotted Bear Ranger Station and guest ranches.

Moose, elk, mule deer, white-tailed deer, and mountain goats all occupy the analysis area on a seasonal basis. White-tailed deer and moose occupy the low-elevation portions of the cumulative effects analysis area (CEA) yearlong. High elevation portions of the analysis area receive use by mountain goats year round, with winter range for elk and mule mapped as overlapping the northern, western, and eastern-most sections of the CEA. Winter range overlapping the east of the CEA consists of contiguous high-quality winter range. Within the CEA, summer ungulate habitat is also likely relatively abundant. Particularly high-quality forage is likely present surrounding high elevation portions of the trail, associated with features described by Canfield (1999):

Some ungulate species access high-quality forage throughout summer by migrating upward in elevation to feed on vegetation in early phenological stages and/or by withdrawing to areas surrounding seeps, springs, and other wet sites within seasonal home ranges where vegetation remains highly digestible... A few ungulate species, in particular mountain goats and bighorn sheep, are very much limited in habitat choices by topography. Thus, even though the total extent of summer habitat is usually not limiting, the important features of the habitat may be limiting (Leege 1984).

Habitat features described here occur near trails included in the Proposed Action, and current motorized use has the potential to disturb ungulates using these features during summer months.

As for grizzly bears, multiple activities and events have influence grey wolf habitat and behavior in the analysis area and have together shaped the affected environment, positively and negatively (as discussed in the Grizzly Bear Affected Environment section). These activities and others are discussed in further detail in the Project File (Exhibits J-1, J-3, & J-6) and in analysis documents for past projects that included portions of the analysis area for wolves, such as the Spotted Bear Vegetation and Fuels Project EA (1998) and the Spotted Beetle Resource Management Project EA (2001).

### ***Environmental Consequences***

Key components of wolf habitat (Wolf Recovery Plan 1987) are a sufficient, year-round prey base of ungulates and alternate prey, suitable and somewhat secluded denning and rendezvous sites, and sufficient space with minimal exposure to humans. Potential effects to wolves for this project would deal primarily with reduced human disturbance of ungulates through reduction of motorized (single-track) trail use, though the potential for effects to any key components of wolf habitat are assessed here.

#### **Direct and Indirect Effects**

##### ***Alternative 1 (No Action)***

This alternative would maintain existing habitat condition, including general ungulate distribution and overall security, unless motorized and/or overall trail use increases over time. If trail use increases, current potential disturbance to ungulates would be expected to increase. This alternative would not affect non-motorized use, but by leaving trails open to motorized use could allow future increases in motorized use (since levels of use are not controlled). Based on steadily increasing rates of motorized trail use across Montana over past decades (Canfield et al. 1999), motorized use of these trails could be expected to increase over time. If motorized disturbance to ungulates occurred more regularly, ungulates may habituate to higher noise levels, or may avoid these areas. Distribution of ungulates in the analysis area could therefore be altered, but it seems unlikely that ungulate numbers in the analysis area would change because of the relatively high availability of forage for ungulates in all seasons in and near the analysis area. There would be no change in the level of motorized access density related habitat security for wolves with this alternative.

##### ***Alternative 2 (Proposed Action)***

This alternative would reduce motorized disturbance to ungulates in the analysis area. As ungulate forage is relatively abundant in the analysis area, it is unlikely that ungulate numbers in the analysis area would change, although there could be a relatively small-scale effect to ungulate distributions (particularly mountain goats, mule deer, and elk). These trail segments include steep rocky terrain and high elevation features (discussed in the Affected Environment section) that may be selected for by ungulates during summer months, even when large amounts of forage opportunities are available on the landscape (Canfield et al. 2000). Though some ungulates have potentially habituated (to varying extents) to the low levels of current motorized use, use of these areas by ungulates may increase with closure to motorized use. Changes related

to removal of motorized human disturbance could include a decrease in small-scale, short-term displacement and or higher use of high elevation forage (and/or features such as seeps) in the area. No change would be expected in ungulate population numbers or their availability to wolves as prey or as carrion. Foraging habitat for ungulates is not limited in this area. No major forested connections would be severed or altered.

The analysis area does not contain known wolf den or rendezvous sites. Thus, there would not be any expected direct or indirect effects on wolves from disturbance to these key habitat features.

There is no grazing in the analysis area or nearby. Mortality risk for wolves would be expected to remain low. Reduced motorized access would result in increased habitat security.

### **Cumulative Effects**

#### ***Alternative 1 (No Action)***

If increased motorized trail use leads to increased disturbance to ungulates over time, habituation or avoidance might be expected reactions from ungulates, as discussed earlier. Continued and/or increased motorized disturbance near these trails would be cumulative to increased disturbance through potential increases in non-motorized trail use and to other human-caused disturbance within the analysis area [particularly recreational activities and access densities, as discussed in the Affected Environment sections for grizzly bears and wolves, and discussed further in the following section and the Project File (Exhibits J-1, J-3, & J-6)]. No other direct or indirect effects to wolves would be expected through this alternative.

#### ***Alternative 2 (Proposed Action)***

Reduced potential disturbance to ungulates and increased habitat security would be potential indirect effects to wolves. Activities and events with potential cumulative effects are those whose effects overlap in time and space with the identified potential effects of this proposal. The events and activities identified as influencing habitat security for grizzly bears are expected overall to have the same positive and negative cumulative effects for wolves as for grizzly bears. An additional cumulative effects consideration for wolves is that other effects to ungulate prey that may overlap with reduced disturbance to ungulates using high elevation features. Other types of trail use (hiking, camping, permitted use by guides) occurring in the same area would allow disturbance to ungulates to continue in the area, but overall disturbance would be reduced. Therefore this project would also be expected to have a positive cumulative effect to wolves in terms of reduced disturbance to ungulates.

Human access, available cover, and public attitudes largely determine mortality risk to wolves. Subsequent to the posted delisting of wolves from the Endangered Species Act in February 2008 (effective March 2008), Montana Fish, Wildlife, and Parks (FWP) would assume management of gray wolves. If the gray wolf's species designation is changed after delisting (to furbearer or big game animal), the FWP Commission would establish regulations "pertaining to management and regulated harvest under the new species designation" (Montana FWP 2003; Montana FWP

2004). At that time the mortality risk to wolves could increase in the state and/or within the project area.

The Proposed Action would be expected to have no cumulative effects to wolf denning habitat or rendezvous sites, and would have a potential positive cumulative effects to prey through decreased disturbance. Given the low levels of current motorized use, positive cumulative effects identified for this proposed project might not change the current likelihood and/or amount of wolf use of the area to a measurable extent. However, in protecting against any potential future increase in motorized use of this trail, the project would maintain and/or increase the likelihood of continued wolf use of the area.

### ***Regulatory Framework and Consistency***

The Proposed Action would be consistent with Forest Plan Standards and Northern Rocky Mountain Wolf Recovery Plan (US Fish and Wildlife Service 1987). Informal ESA consultation has been completed between the Flathead National Forest and the USFWS for the Proposed Action (Project File Exhibits J-6 and J-7). The ESA determination for this project was based on potential positive effects of this proposal in combination with the existing baseline for wolf habitat in the analysis area (see Project File Exhibit J-6).

## **Canada Lynx (Threatened)**

### ***Analysis Area***

The Canada lynx analysis area for direct, indirect and cumulative effects includes the six Lynx Analysis Units (LAU) that contain the trails proposed for closure to motorized use; Squeezer, Soup, Bunker Cr., Lost, Sullivan Cr., and Stony Jungle (Project File Exhibits J-3 & J-6). As per current direction given by the Northern Rockies Lynx Management Direction (NRLMD) (USDA Forest Service 2007), project level analysis of effects is to be done at the LAU scale. LAUs are intended to provide the fundamental or smallest scale with which to begin evaluation and monitoring of the effects of management actions on lynx habitat. LAUs approximate the size of an area used by an individual lynx.

### ***Affected Environment***

To date, most investigations of lynx have not shown that human presence influences lynx behavior (Ruediger et al 2000). Therefore, it is unlikely that past human activities such as huckleberry picking, river use, hiking/biking, firewood cutting, camping, etc. have had a significant effect on how lynx use the landscape. Several ridge-top miles of trail included in the Proposed Action cross through areas mapped as non-lynx habitat (Project File Exhibit J-6).

Recreational uses local to the analysis area with the most potential to affect lynx are those occurring during winter and early spring. This is partly because snow-compacting forms of winter recreation are considered by some authors to potentially offer winter travel routes for competing predators (Buskirk et al., 1999, Claar et al., 1999), although a recent Montana-based



study of coyote use of snow-compacted roads found that coyotes used compacted and non-compacted roads similarly. These winter uses may also lead to human presence and disturbance of lynx during denning time from late May to early June (Claar et al., 1999).

Human development (including recreation sites, private development, and administrative sites) and timber harvest have reduced, but not eliminated, lynx and winter snowshoe hare habitat in these LAUs. These activities have likely had a net negative impact on lynx. Most private development has permanently altered lynx habitat, whereas timber harvest has altered habitat temporarily.

Within these LAUs, timber harvests and fires have led to a diversity of seral stages, with some temporary reduction of winter snowshoe hare habitat resulting from harvests and fires that occurred within the last 10 or so years. Many areas affected by older harvests and fires have most likely moved into stand conditions expected to support snowshoe hares. Forest stands where past harvest or fires have occurred would be likely to currently provide snowshoe hare habitat.

### ***Environmental Consequences***

The project area is within lynx habitat and conservation measures contained in the NRLMD are applicable.

Lynx are generally tolerant of humans (Ruediger et al. 2000) and are not necessarily displaced by human presence. Activities typically considered or suspected to pose the greatest risk to lynx are those that increase access for competing species (particularly through increased snow compaction), that decrease snowshoe hare habitat, or that disrupt denning and rearing of young (Claar et al. 1999; USDA Forest Service 2007). Most literature to date dealing with affects of recreation on lynx pertain more directly to the affects of winter recreation and the construction of facilities such as ski resorts and campgrounds (Claar et al. 1999; USDA Forest Service 2007), which can cause direct impacts to lynx, “through habitat loss/modification and the addition of various human activities in an area” (Claar et al. 1999).

Threats to lynx identified in the NRLMD include threats to habitat connectivity, timber management, recreation management, roads and highways, predator control activities, ski areas, and activities that reduce habitat for snowshoe hare. This project does not alter habitat and does not change winter use of the area.

### **Direct and Indirect Effects**

#### ***Alternative 1 (No Action)***

Overall habitat conditions would be expected to remain unchanged, such as availability of areas in affected LAUs for denning or foraging, since current use would continue. Continued current use levels of the trail segments would not be expected to alter or reduce snowshoe hare habitat. Likewise, current trail use would not be expected to reduce lynx denning or foraging areas, or the ability of lynx to move across the LAUs. No identified threshold was found during the review

over which increased human use would be considered negative for lynx (for motorized and/or non-motorized trail use). However, given the lack of a known threshold, future increases in trail use could be presumed to be negative for lynx and other reclusive species, although this subject needs further study.

This alternative is consistent with all recommended standards and guidelines of current agency direction as described in the NRLMD (USDA Forest Service 2007).

### ***Alternative 2 (Proposed Action)***

Availability of areas in affected LAUs for denning or foraging would likely remain unchanged and the ability of lynx to travel across the action area would not be affected by the Proposed Action (see above discussion). Forested connectivity would not be affected. This project would not alter or reduce snowshoe hare habitat.

Current literature suggests that road densities do not seem to affect lynx habitat selection (Ruediger et al., 2000), and the same could reasonably be extended to trails but current literature reviewed does not address this issue. Literature pertaining to recreation and lynx, as mentioned earlier, deals primarily with snow-compacting winter recreation and the creation of new developed recreation sites (Claar et al. 1999).

Proposed management would be consistent with all recommended standards and guidelines of current agency direction as described in the NRLMD (USDA Forest Service 2007).

### **Cumulative Effects**

#### ***Alternatives 1 (No Action) and 2 (Proposed Action)***

Since no direct or indirect effects to lynx for either alternative were identified through this analysis, there would be no expected cumulative effects from this proposal. As mentioned earlier, reduced disturbance can be broadly considered good for lynx, as for many wildlife species, and future studies may reveal more direct relationships between lynx and non-winter motorized recreation. Given our lack of extensive knowledge of the relationships between lynx and recreation in general, lynx could be presumed to benefit to some degree by reduced disturbance, but based on current knowledge, no measurable effects to lynx habitat are expected.

### ***Regulatory Framework and Consistency***

The project meets FNF Forest Plan management direction and standards, as established in the NRLMD. Informal ESA consultation has been completed between the Flathead National Forest and the USFWS for the Proposed Action (Project File Exhibits J-6 and J-7). The Endangered Species Act determinations for lynx are based on additional analysis at the forest scale (Exhibits J-1 and J-6).

## Sensitive Wildlife Species

### Introduction

In accordance with Forest Service Manual (FSM) 2673.42, determinations have been made assessing the degree of impact the proposed activities may have on sensitive species (Table 7 and Project File Exhibit J-2). These determination statements are for the segment of the population using the analysis area. Project File Exhibit J-1 provides viability/diversity determinations for this project when evaluated at larger spatial scales including that of the Flathead National Forest. These statements are based on available information on the distribution, presence/absence from the project area, habitat requirements, and management strategies for these species, and project design and location. Additional information can be found in the Project File.

**Table 7. Biological Evaluation Determinations for Sensitive Wildlife Species**

Species	Alt. 1	Alt. 2	Rational
<b>Bald Eagle</b>	NI	NI	Habitat along rivers would be unaffected.
<b>Peregrine Falcon</b>	NI	NI	Known potential habitat would be unaffected.
<b>Flammulated Owl</b>	NI	NI	No change to potential habitat.
<b>Harlequin Duck</b>	NI	NI	No change to potential habitat.
<b>Common Loon</b>	NI	NI	No change to potential habitat.
<b>Townsend's Bat</b>	NI	NI	No maternal roosting or other habitat in the project area.
<b>Black-backed Woodpecker</b>	NI	NI	No vegetation management (or change to important features such as snags); habitat would not be affected.
<b>Wolverine</b>	MIIH	BI	No vegetation management (or change to important features such as riparian areas, snags/large down wood, old-growth); habitat would not be physically altered. Reduction in human disturbance within preferred alpine habitat could be presumed to benefit wolverines, although extent of benefit is not known.
<b>Fisher</b>	NI	NI	Known potential habitat would be unaffected; no change in winter access/use.
<b>Northern Leopard Frog</b>	NI	NI	No vegetation management; habitat would not be affected.
<b>Boreal Toad</b>	MIIH	BI	Ponds and riparian landtypes are present within the project area. The potential for individual toad mortality resulting from motorcycle use would be reduced or eliminated.
<b>Northern Bog Lemming</b>	NI	NI	There is no habitat for the species within the project area.

*NI = No Impact; MIIH = May Impact Individuals or Habitat but will not likely result in a trend toward federal listing or reduced viability for the population or species; BI = Beneficial Impact.*

**Table 8. Potential Impacts to Management Indicator Species**

<b>Species</b>	<b>Rational</b>
<b>Elk, Mule Deer, &amp; White-tailed Deer</b>	No vegetation management; habitat would not be physically altered. High-value alpine habitat exists within the project area. Reduction in motorized use could increase use of these habitat features to an unknown degree.
<b>Old-Growth Species</b>	No vegetation management; habitat would not be affected.
<b>Snags &amp; Down Wood</b>	No vegetation management; habitat would not be affected.
<b>Northern Goshawk</b>	No vegetation management; habitat would not be affected

### ***Regulatory Framework and Consistency***

Federal laws and direction applicable to sensitive species include the National Forest Management Act (NFMA, 1976) and Forest Service Manual (FSM) 2670. The USDA Forest Service is bound by federal statutes (ESA, NFMA), regulation (USDA 9500-4), and agency policy (FSM 2670) to conserve biological diversity on Forest Service lands. In accordance with FSM 2673.42, determinations have been made as to the degree of impact the proposed activities may have on sensitive species (Project File Exhibit J-3).

## **BOTANY**

### ***Threatened, Endangered, and Sensitive Species***

#### ***Affected Environment***

Low amounts of motorcycle and non-motorized use occur on the Proposed Action trails, including the Bruce Creek Trail, the Alpine 7 Trail from Crevice Lake south to Napa Point, and the Napa Point trails.

#### ***Environmental Consequences***

##### **Direct, Indirect, and Cumulative Effects**

###### ***Alternative 1 (No Action)***

There would be no ground disturbance associated with the selection of this alternative. Motorcycle and non-motorized use would continue to occur on the Proposed Action trails.

###### ***Alternative 2 (Proposed Action)***

There would be no ground disturbance associated with the selection of this alternative; motorcycle use would not be allowed on the Proposed Action trails. This alternative would have no effect on the two federally listed plants known or potentially known to occur on the FNF

(Spalding's catchfly and water howellia). The Proposed Action would have no effects to these species or habitat for these species, as there are no known occurrences and no potential habitat for these two species along or near the trails affected by the Proposed Action.

There are no known occurrences of sensitive plants along the trail system of the Proposed Action. There would be the potential for sensitive plants with associated habitats of alpine, subalpine, rock outcrops, and mid-elevation coniferous forest to be present. However, the Proposed Action would close the trail system to wheeled motorized access and would not propose any new ground disturbance. The Proposed Action would have no effect on Regional Forester's sensitive plants or their habitats due to lack of known occurrences and lack of ground disturbance of the Proposed Action.

## **HERITAGE AND CULTURAL RESOURCES**

### ***Affected Environment***

Low amounts of motorcycle and non-motorized use occur on the Proposed Action trails including the Bruce Creek Trail, the Alpine 7 Trail from Crevice Lake south to Napa Point, and the Napa Point trails.

### ***Environmental Consequences***

#### **Direct, Indirect, and Cumulative Effects**

##### ***Alternative 1 (No Action)***

There would be no ground disturbance associated with the selection of this alternative. Motorcycle and non-motorized use would continue to occur on the Proposed Action trails.

##### ***Alternative 2 (Proposed Action)***

There would be no ground disturbance associated with the selection of this alternative. The Proposed Action would not allow motorcycle use on the Proposed Action trails.

## **FISHERIES**

### ***Affected Environment***

Low amounts of motorcycle and non-motorized use occur on the Proposed Action trails, including the Bruce Creek Trail, the Alpine 7 Trail from Crevice Lake south to Napa Point, and the Napa Point trails.

## ***Environmental Consequences***

### **Direct, Indirect, and Cumulative Effects**

#### ***Alternative 1 (No Action)***

There would be no ground disturbance associated with the selection of this alternative. Motorcycle and non-motorized use would continue to occur on the Proposed Action trails.

#### ***Alternative 2 (Proposed Action)***

There would be no ground disturbance associated with the selection of this alternative. The Proposed Action would not allow motorcycle use on the Proposed Action trails. There would be no effect to bull trout and no impact to westslope cutthroat trout because of this project. Bull trout are present in Addition Creek and cutthroat trout are present in both Addition and Bruce Creeks. However, there would not be any sediment production from this project reaching either stream. In places where the trail closely parallels or crosses the stream, there should be a reduction in sediment, due to lack of motorized, use resulting in improved stream conditions.

## **SOILS AND HYDROLOGY**

### ***Affected Environment***

Low amounts of motorcycle and non-motorized use occur on the Proposed Action trails, including the Bruce Creek Trail, the Alpine 7 Trail from Crevice Lake south to Napa Point, and the Napa Point trails.

## ***Environmental Consequences***

### **Direct, Indirect, and Cumulative Effects**

#### ***Alternative 1 (No Action)***

There would be no ground disturbance associated with the selection of this alternative. Motorcycle and non-motorized use would continue to occur on the Proposed Action trails.

#### ***Alternative 2 (Proposed Action)***

There would be no ground disturbance associated with the selection of this alternative. The Proposed Action would not allow motorcycle use on the Proposed Action trails. The conversion of the Proposed Action trails from motorized trails to non-motorized would slightly reduce the erosion potential from the trail. This would be primarily due to the reduction of ruts within the trail that channel rainfall and snowmelt water. Some of the soils found along this trail have a moderately low bearing strength when moist, especially during the early spring or late fall

season. These soils with lower bearing strength tend to be more easily rutted by a motorcycle than by foot or horse traffic.

Whether or not eroded soil material can reach a stream and become suspended sediment is dependent upon the distance that trail is from the stream channel, and how much of a vegetation buffer is present to filter out the potential suspended sediment. In general, soil erosion from trails does not become suspended sediment; the small amount that might tend to occur in very few locations and for a short duration. Therefore, there may be some slight benefit to water quality due to conversion of a trail segment from motorized to non-motorized; however this benefit would be immeasurable compared to the natural variation of sediment transport in a mountain stream channel.

Based upon photo-interpretation review of the trail location proposed for conversion to non-motorized use, there would be no jurisdictional wetlands occurring in close proximity to the trail. Therefore, there should be no effect upon wetland resources due to the Proposed Action.

## **GLOSSARY**

**ACTION ALTERNATIVE** - An alternative that proposes some management action, as contrasted to the No Action Alternative.

**AFFECTED ENVIRONMENT** - The biological and physical environment that will or may be changed by actions proposed and the relationship of people to that environment.

**ALTERNATIVE** - A combination of management prescriptions applied in specific amounts and locations to achieve a desired management emphasis. One of the several policies, plans or projects, proposed for decision making.

**ATV** - All Terrain Vehicle, sometimes referred to as a four-wheeler.

**BIG GAME** - Those species of large mammals normally managed as a sport hunting resource.

**BIOLOGICAL ASSESSMENT** - A document prepared by a federal agency for the purpose of identifying any endangered species or threatened species which is likely to be affected by an agency action. This document facilitates compliance with the Endangered Species Act. The federal agency, in consultation with the Secretary of Interior, must insure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of any endangered or threatened species, or result in the destruction or adverse modification of its habitat.

**BIOLOGICAL EVALUATION** - A document prepared by the Forest Service to review programs or activities to determine how an action might affect any threatened, endangered, proposed, or sensitive species. This document often focuses only on sensitive species if the Threatened, Endangered, and Proposed Species will be covered in a Biological Assessment.

**CODE OF FEDERAL REGULATIONS (CFR)** - The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government.

**CONSULTATION** - A process required by Section 7 of the Endangered Species Act whereby federal agencies proposing activities in a listed species habitat confer with the U. S. Fish and Wildlife Service about the impacts of the activity on the species. Consultation may be informal, and thus advisory, or formal, and thus binding.

**COUNCIL ON ENVIRONMENTAL QUALITY (CEQ)** - An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

**CULTURAL RESOURCES** - The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) and conceptual content or context (as a setting for legendary, historic, or prehistoric events; as a sacred area of native peoples, etc.) of an area of prehistoric or historic occupation.

**CUMULATIVE EFFECT** - The impact on the environment which results from the incremental impact of the action when added to other actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time.



**DEVELOPED RECREATION** - Recreation that occurs where improvements enhance recreation opportunities and accommodate intensive recreation activities in a defined area.

**DIRECT EFFECT** - Effects on the environment which occur at the same time and place as the initial cause or action.

**DISPERSED RECREATION** - That portion of outdoor recreation use which occurs outside of developed sites in the unroaded and roaded forest environment i.e., hunting, backpacking, and berry picking.

**ECOSYSTEM** - A functional unit consisting of all the living organisms (plants, animals, and microbes) in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient cycling and energy flow. An ecosystem can be of any size--a log, pond, field, forest, or the earth's biosphere--but it always functions as a whole unit. Ecosystems are commonly described according to the major type of vegetation, for example, forest ecosystem, old-growth ecosystem, or range ecosystem.

**EFFECTS** - Physical, biological, social, and economic causes (expected or experienced) resulting from achievement of outputs. Effects can be direct, indirect, and cumulative.

**ENDANGERED SPECIES** - Any species, plant, or animal which is in danger of extinction throughout all or a significant portion of its range. Endangered species are identified by the Secretary of the Interior in accordance with the 1973 Endangered Species Act. (ESA)

**ENVIRONMENTAL ASSESSMENT (EA)** - A concise public document for which a federal agency is responsible that serves to: (1) briefly provide sufficient evidence and analysis for determining whether to prepare and environmental impact statement or a finding of no significance impact.

**EROSION** - The group of processes whereby earthy or rocky material is worn away by natural sources such as wind, water, or ice and removed from a part of the earth's surface.

**FOREST PLAN** - The Flathead National Forest Land and Resource Management Plan (LRMP), December 1985. A Forest Plan is a document prepared under the National Forest Management Act by each national forest that generally describes how the resources in the forest will be managed for a 10-15 year period.

**FOREST SYSTEM ROAD** - A road wholly or partly within or adjacent to and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and developments of its resources.

**FSH** - Forest Service Handbook

**FSM** - Forest Service Manual

**GEOGRAPHIC INFORMATION SYSTEM (GIS)** - Computer software that provides database and analytic capabilities.

**GUIDELINE** - An indication or outline of policy or conduct dealing with the basic management of the Forest. Forest-wide management standards and guidelines apply to all areas of the Forest regardless of the other management prescriptions applied.

**INDIRECT EFFECTS** - Secondary effects which occur in locations other than the initial action or significantly later in time.

**INFRA** - The Forest Service uses INFRA as an integrated data management tool to manage and report accurate information and associated financial data on the inventory of constructed features, such as buildings, dams, bridges, water systems, roads, trails, developed recreation sites, range improvements, administrative sites, heritage sites, general forest areas, and wilderness.

**INTERDISCIPLINARY TEAM (IDT)** - A group of individuals with different training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one scientific discipline is sufficiently broad to adequately solve the problem. Through interaction, participants bring different points of view to bear on the problem.

**INVENTORIED ROADLESS AREA** - An area identified and classified as roadless. These areas were identified during the second Roadless Area Review and Evaluation (RARE II).

**ISSUE** - See Public Issue.

**LAND AND RESOURCE MANAGEMENT PLAN (LRMP)** - A strategic integrated resource plan based on the principles of enhanced public involvement, consideration of all resource values, and resource sustainability.

**LYNX ANALYSIS UNIT (LAU)** - An area that approximates the size of an average female lynx home range (25-40 square miles in contiguous habitat, and that contains habitats needed in all seasons. The LAU is not the actual home range, but is an analysis unit upon which direct, indirect, and cumulative effects analyses are preformed.

**LYNX HABITAT** - Higher-elevation, cool/cold, moist forests. In the western United States, subalpine fir/spruce associations (with lodgepole pine as a seral species) provide the primary habitat.

**MANAGEMENT AREA (MA)** - An aggregation of capability areas which have common management direction and may be dispersed over the Forest. Consists of a grouping of capability areas selected through evaluation procedures and used to locate decisions and resolve issues and concerns.

**MITIGATE** - To lessen the severity, or compensate for some loss.

**MITIGATION** - Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact by preservation and maintenance operations during the life of the action.

**MONITORING AND EVALUATION** - The periodic evaluation on a sample basis of Forest Plan management practices to determine how well objectives have been met and how closely management standards have been applied.

**MOTOR VEHICLE USE MAP** - A map reflecting designated roads, trails, and areas on an administrative unit or a Ranger District of the National Forest System.

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)** - An act which encourages productive and enjoyable harmony between man and his environment; promotes efforts to prevent or eliminate damage to

the environment and biosphere and stimulate the health and welfare of man; enriches the understanding of the ecological systems and natural resources important to the Nation; and establishes a Council on Environmental Quality.

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PROCESS** - An interdisciplinary process, mandated by NEPA, which concentrates decision making around issues, concerns, alternatives, and the effects of the alternatives on the environment.

**NATIONAL FOREST MANAGEMENT ACT (NFMA)** - A law passed in 1976 as amendments to the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of Regional and Forest plans and the preparation of regulations to guide that development.

**NATIONAL FOREST SYSTEM (NFS)** - All national forest lands reserved or withdrawn from the public domain of the United States, all national forests lands acquired through purchase, exchange, donation, or other means, the national grasslands and land utilization projects administered under Title III.

**NATIONAL VISITOR USE MONITORING (NVUM)** - The National Visitor Use Monitoring (NVUM) program provides reliable information about recreation visitors to national forest system managed lands at the national, regional, and forest level. NVUM information assists Congress, Forest Service leaders, and program managers in making sound decisions that best serve the public and protect valuable natural resources by providing science based, reliable information about the type, quantity, quality, and location of recreation use on public lands. The information collected is also important to external customers including state agencies and private industry. NVUM methodology and analysis is explained in detail in the research paper entitled: Forest Service National Visitor Use Monitoring Process: Research Method Documentation; English, Kocis, Zarnoch, and Arnold; Southern Research Station; May 2002 (<http://www.fs.fed.us/recreation/programs/nvum/>).

**NATIONAL WILDERNESS PRESERVATION SYSTEM (NWPS)** - All lands covered by the Wilderness Act and subsequent wilderness designations, irrespective of the department or agency having jurisdiction.

**NO-ACTION ALTERNATIVE** - The management direction, activities, outputs, and effects most likely to exist in the future if the current plan would continue unchanged.

**NOXIOUS WEED** - Any exotic plant species established or that may be introduced in the area which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses.

**OBJECTIVE** - A concise time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning, to define the precise steps to be taken, and the resources to be used in achieving identified goals.

**OFF-ROAD VEHICLE (ORV)** - Any vehicle capable of being operated off an established road or trail, e.g., motorbikes, four-wheel drives, and snowmobiles.

**POTENTIAL HABITAT (Wildlife)** - Habitat that is likely to be occupied by a wildlife species or group of species, currently or in the near future.

**PREFERRED ALTERNATIVE** - The agency's preferred alternative is the alternative that the agency believes would best fulfill its statutory mission and responsibilities, considering economic, environmental, technical and other factors, and which meets the purpose and need of the NEPA document.

**PROPOSED ACTION** - The proposed action or proposal exists at that stage in the development of an action when an agency subject to the Act (NEPA) has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the effects can be meaningfully evaluated.

**PROPOSED THREATENED SPECIES** - A species that has been formally proposed for listing as Threatened under the Endangered Species Act.

**PUBLIC INVOLVEMENT** - A process designed to broaden the information base upon which agency decisions are made by informing the public about Forest Service activities, plans, and decisions, and participation in the planning processes which lead to final decision making.

**PUBLIC ISSUE** - A subject or question of widespread public interest identified through public participation relating to management of National Forest System lands.

**RANGER DISTRICT** - Administrative subdivision of the Forest supervised by a District Ranger.

**RECREATION OPPORTUNITY SPECTRUM (ROS)** - A system the Forest Service uses to classify NFS lands. The range of recreational experiences, opportunities, and settings available on a given area of land is classified through the ROS. Classifications include: Primitive, Semiprimitive-Motorized, Semiprimitive Nonmotorized, Roded Natural, Rural, and Urban. The ROS is a framework for inventorying, planning, and managing the recreational experience and setting.

**RECREATION VISITOR DAY (RVD)** - One 12 hour period of recreation. It can be one person for 12 hours, 2 people for 6 hours, 12 people for 1 hour, etc.

**RESPONSIBLE LINE OFFICER** - The Forest Service employee who has the authority to select and/or carry out a specific planning action. See also Deciding Officer

**RESTORATION** - The re-creation of a natural or self-sustaining community or ecosystem, or a movement in that direction.

**RIPARIAN AREAS** - Areas with distinctive resource values and characteristics that are comprised of an aquatic ecosystem and adjacent upland areas that have direct relationships with the aquatic system. This is considered the horizontal distance of approximately 100 feet from the normal high water line of a stream channel, or from the shoreline of a standing body of water.

**RIPARIAN ECOSYSTEM** - A transition between the aquatic ecosystem and the adjacent upland terrestrial ecosystem. It is identified by soil characteristics and by distinctive vegetative communities that require free or unbounded water.

**ROAD MANAGEMENT** - The combination of both traffic management and maintenance management operations. Traffic management is the continuous process of analyzing, controlling, and regulating uses to accomplish National Forest objectives. Maintenance management is the perpetuation of the transportation facility to serve intended management objectives.

**ROADLESS AREA REVIEW & EVALUATION II (RARE II)** - A comprehensive process, instituted in June 1977, to identify roadless and undeveloped land areas in the National Forest System and to develop alternatives for both wilderness and other resource management.

**SCOPING PROCESS** - An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. Identifying the significant environmental issues deserving of study and deemphasizing insignificant issues, narrowing the scope of the environmental impact statement accordingly (Reg. CEQ regulations, 40 CFR 1501.7).

**SEDIMENT** - Solid material, both mineral and organic, that is in suspension, being transported, or has been moved from its site of origin by air, water, gravity, or ice.

**SENSITIVE SPECIES** - Those wildlife and plant species identified by the Regional Forester for which population viability is a concern because of significant current or predicted downward trends in (a) population numbers or density, or (b) habitat capability that would reduce a species' existing distribution.

**SPECIES** - A group of actually or potentially interbreeding populations that are reproductively isolated from all other kinds of organisms.

**SPECIFIED ROAD** - See Forest Development Road.

**SPRING RANGE** - The area available to and used by wildlife species (specifically big game and/or grizzly bear) during the spring season.

**STANDARDS AND GUIDELINES** - An indication or outline of policy or conduct dealing with the basic management of the Forest. Forest-wide management standards and guidelines apply to all areas of the Forest regardless of the other management prescriptions applied.

**SUMMER RANGE** - Land used by wildlife species (specifically big game and/or grizzly bear) during the summer months.

**SYSTEM ROAD** - See Forest System Road, above.

**THREATENED, ENDANGERED AND SENSITIVE SPECIES (TES)** - Any species, plant or animal, which is likely to become an endangered species within the foreseeable future throughout all, or a significant portion, of its range. Threatened species are identified by the Secretary of the Interior in accordance with the 1973 Endangered Species Act.

**TRAILHEAD** - The parking, signing, and other facilities available at the terminus of a trail.

**UNGULATE** - A mammal with hooves.

**WATER QUALITY** - The physical, chemical, and biological properties of water.

**WATER RESOURCES** - The supply of water in a given area or basin interpreted in terms of availability of surface and underground water.

**WETLAND** - Areas that under normal circumstances have hydrophytic vegetation, hydric soils, and wetland hydrology.

**WILDERNESS** - Federal land retaining its primeval character and influence without permanent improvements or human habitation as defined under the 1964 Wilderness Act. It is protected and managed so as to preserve its natural conditions which (1) generally appear to have been affected primarily by forces of nature with the imprint of man's activity substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and confined type of recreation; (3) has at least 5,000 acres or is of sufficient size to make practical its preservation, enjoyment, and use in an unimpaired condition, and (4) may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest.

**WINTER RANGE** - The areas available to and used by big game during the winter season. Must contain forage or browse to feed big game. Winter range areas tend to have a relatively low amount of snow cover which enables the animals to reach the forage.

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**AGENCIES, BUSINESSES, ORGANIZATIONS, AND PEOPLE  
RECEIVING THE EA OR A LETTER**

Agencies, businesses, organizations, and individuals that sent comments during the Spotted Bear Ranger District Motorized Travel Planning Project or the Bruce Creek to Alpine 7 to Napa Point Motorized Trail Project comment periods, have been sent the Environmental Assessment.

***FEDERAL, STATE, AND LOCAL AGENCIES and OFFICIALS***

Flathead County Commissioners

Senator Max Baucus

Senator Jon Tester

***BUSINESSES***

Bigfork Eagle

Daily Inter Lake, Jim Mann

Great Northern Llama Co., Steve Rolfing

Hungry Horse News

FH Stoltze Land & Lumber Co., Chuck Roady

Whitefish Pilot

***ORGANIZATIONS***

Backcountry Horsemen of the Flathead, Don Holman

Backcountry Hunters and Anglers, Ben Long

Blue Ribbon Coalition, Ric Foster

Capital Trail Vehicle Association, Ken Salo

Center for Biological Diversity, Andrew Orahoske

Citizens for Balanced Use, Kerry White

Conservation Congress, Denise Boggs

Friends of the Wild Swan, Arlene Montgomery

Great Bear Foundation, Brian Peck

Montana Native Plant Society, Jennifer Hintz

Montana Snowmobile Association., Robbie Holman

Montana Wilderness Association, Sarah Lundstrum

Montana Wilderness Association, Janis Taylor & Terry Meyers

Montanans for Multiple Use, Steve Funke

Montanans for Multiple Use, Fred Hodgeboom

Swan View Coalition, Keith Hammer

Western Montana Trail Riders Association, Rick Deniger

The Wilderness Society, Josh Hicks

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Note: GV – Glacier View Ranger District  
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 SB – Spotted Bear Ranger District  
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