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Environmental Assessment

Upper Stillwater Lake Campground Renovation Project

Flathead National Forest
Tally Lake Ranger District
Flathead County, Montana



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(406) 758-5200

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Upper Stillwater Lake Campground Renovation Project

Environmental Assessment

**Flathead National Forest
Tally Lake Ranger District
Flathead County, Montana**

Lead Agency:

USDA Forest Service

Responsible Official:

Lisa Timchak, District Ranger
Tally Lake Ranger District
650 Wolfpack Way, Kalispell, MT 59901
(406) 758-0504

**For Further Information
Please Contact:**

Becky Smith-Powell, Resources Assistant
Tally Lake Ranger District
650 Wolfpack Way, Kalispell, MT 59901
(406) 758-0438
brsmith@fs.fed.us

Abstract: This environmental assessment (EA) summarizes the analysis performed and resulting effects of the proposed implementation of campground renovation activities at the Upper Stillwater Lake Campground area. Recent visitor use patterns at the campground has demonstrated the need to provide for public safety, reduce user conflicts with other users, and prevent unnecessary resource damage. A proposed action (Alternative B) was developed to meet these needs. Issues that influenced the development of an alternative to the proposed action (Alternative C) were concerns over too much development, wildlife disturbance, and the poor condition of the boat launch. Alternative C responds to the stated needs while emphasizing these specific issues. A no action alternative (alternative A) was also analyzed. The *Preferred Alternative* for this project is Alternative C.

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CHAPTER 1 - PURPOSE AND NEED

Introduction

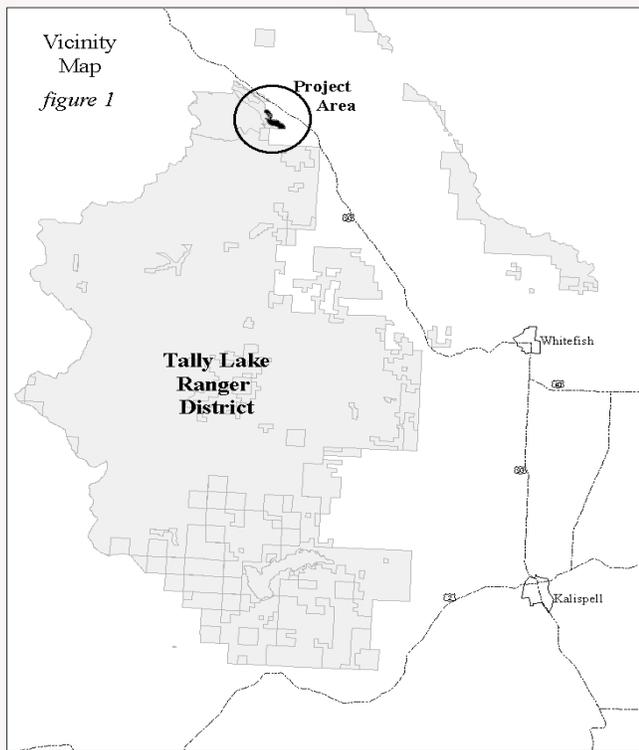
This Environmental Assessment (EA) presents an analysis of the environmental effects of three alternatives proposing activities at the Upper Stillwater Lake Campground. This campground is located on the Tally Lake Ranger District of the Flathead National Forest. The location of the project is about five miles northwest of Olney, Montana in T33N, R24W, Section 23, as shown on Figure 1-1. This analysis is being conducted in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. The project is called the Upper Stillwater Lake Campground Renovation Project, hereafter referred to as the Stillwater Campground Project.

This EA discloses the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action and its alternatives. An Interdisciplinary Team (IDT) used a systematic approach to analyze effects and prepare this EA. This document is organized in the format established by the Council on Environmental Quality (CEQ) regulations implementing the NEPA (40 Code of Federal Regulations 1500-1508). There are four chapters and a project file. Chapter 1 explains the purpose and need of the project and introduces the agency's Proposed Action. Chapter 2 describes and compares the No Action Alternative, the Proposed Action, and an additional action alternative developed in response to issues identified during public scoping of the Proposed Action. Chapter 3 describes the natural and human environments that are potentially affected by the alternatives and discloses what potential effects are anticipated. Chapter 4 includes a list of document preparers, agencies, and persons consulted in the project. A list of literature cited in the document is found after Chapter 4. The project file is a collection of additional information used in the analysis of the Stillwater Campground Project and is available for review at the Tally Lake Ranger District office. References to Project File material in this EA are referred to by exhibit number (e.g. "Exhibit H-3").

Some terms used in this document are of a technical nature and may be unfamiliar to the reader. A glossary of definitions is provided in Appendix A.

Background and Project Area Description

The Upper Stillwater Lake Campground was built in 1960. It is located on the north end of Upper Stillwater Lake, immediately adjacent to the confluence of the Stillwater River. The existing facility consists of a primitive boat ramp, two campsites with picnic tables and fire rings that are not accessible for wheelchair users, a vault toilet (installed in 2003), and a parking lot that is designed for day use and boat/trailer parking. Individual campsites are located close to the lakeshore, just west of the boat ramp, and frequently used for camping. The current campground, parking lot, and boat ramp area is approximately 1.5 acres in size.

Figure 1-1. Project Area Vicinity

The campground is within one mile of private lands with residential dwellings. The access road (Forest Road 2870) leads to the campground, Stillwater River, and the Burlington Northern Santa Fe main railroad line. The road is blocked past the turn-off to the campground and turns into a trail that leads to three lakes: Lagoni, Finger, and Wall. The recreational opportunities for this area include hiking, camping, boating, fishing, mountain biking, picnicking, and other day use activities. Figure 1-2 illustrates the location of the campground in relation to the above subjects. Due to the wide variety of recreational opportunities and its close proximity to Whitefish, Eureka, Olney, and other communities in northwest Montana, this area is experiencing high levels of use.

The campground has deteriorated over time and the site no longer meets present design criteria, needs, and demands. Health, safety, and resource concerns include resource damage from off-road vehicular traffic, an unvegetated core area along the lake shore, crumbling fire grates and picnic tables, lack of informational signs, and marginal road access. Crowded conditions have resulted in some conflicts between boaters who wish to park their trailers in the parking lot and overflow campers who are camping in the parking lot. Stillwater Campground is one of the more popular small lakeside campgrounds located on the Tally Lake Ranger District. The campground area does not currently meet the Americans with Disabilities Act (ADA) criteria for accessibility.

Purpose and Need

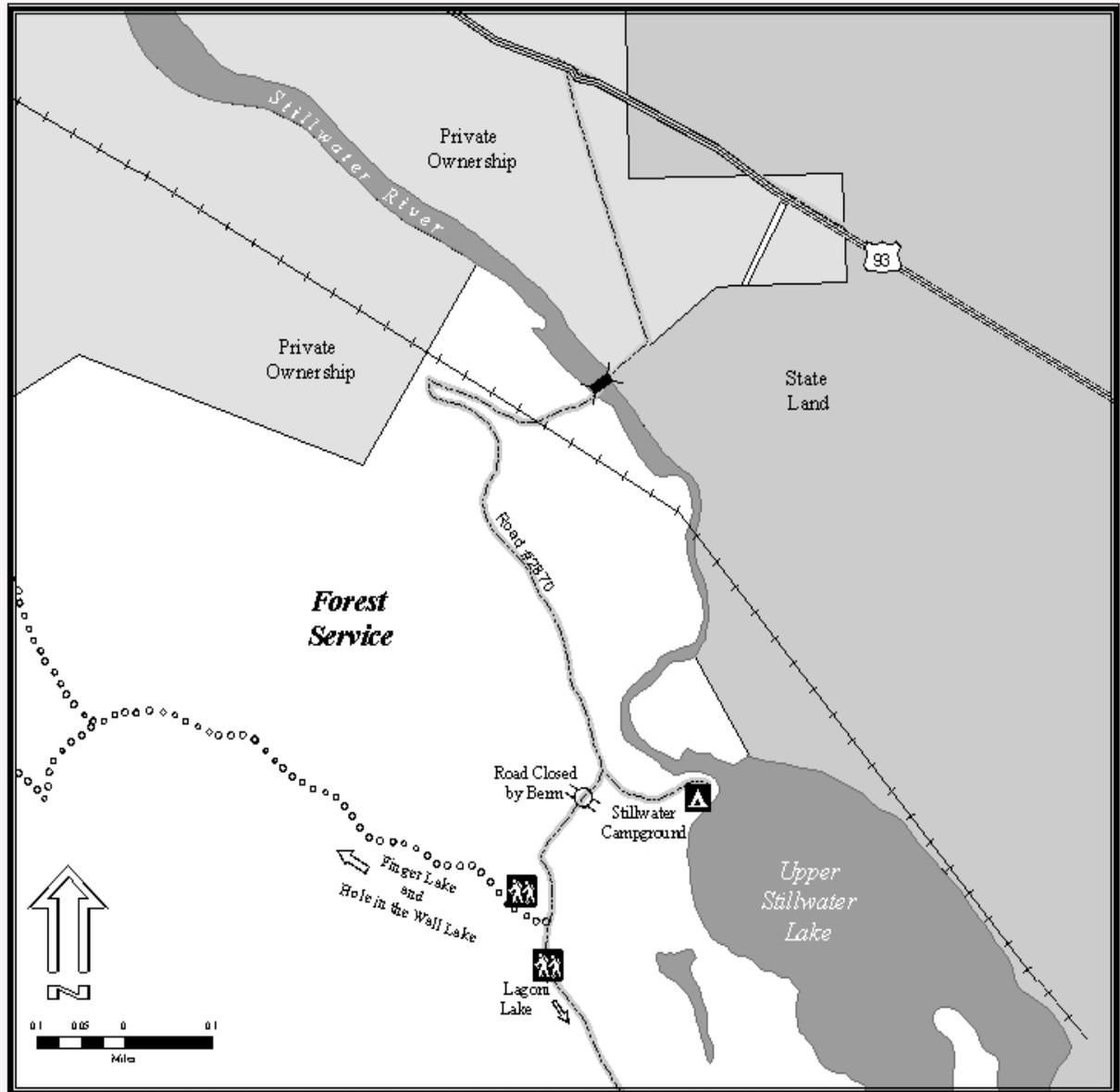
The Stillwater Campground Project is proposed to respond to the goals, objectives, and standards of the Flathead Forest Plan. Specifically, the project responds to the Forest-wide standard on page II-21: "The quality of the developed recreation opportunities available will be improved through...redesign and reconstruction of existing sites to better accommodate present and future needs."

Input about improving the recreation experience at Upper Stillwater Lake has also been provided by members of the public. Prior to initiating the project, complaints and comments were given to the District Ranger, recreation resources assistant, and front desk personnel regarding overcrowding and inadequate facilities.

The IDT identified the purpose and need of the project as renovating the Stillwater Campground in order to:

- provide for public safety and access,
- reduce user conflict,
- respond to overcrowding, and
- prevent unnecessary resource damage.

Figure 1-2. Project Area Details



Proposed Action

The Proposed Action is identified early in the project-level planning process. This serves as a starting point for the IDT, and gives the public and other agencies specific information on which to focus their comments. Using these comments, the IDT developed an alternative to the Proposed Action. The Proposed Action can be summarized as:

- Upgrading the campground and facilities by designating five drive-in sites;
- Improving the access road;
- Restoring native vegetation in trampled areas;
- Providing a fishing pier and repairing the boat ramp;

Chapter 2 provides a detailed description of the Proposed Action and the design features associated with it. Activities proposed in this EA are only for implementation on National Forest System (NFS) land.

Decision to Be Made

Based on the analysis in this EA, the information contained in the Project File, and comments received from the public and other agencies, the Tally Lake District Ranger is the Responsible Official and may choose any of the alternatives detailed in this document. The Ranger may also choose a combination of elements from the alternatives as long as they are within the range of effects. The Ranger will outline and explain her decision in a Decision Notice (DN). The DN will be issued following public review and comments on this EA.

Relationship to the Forest Plan

National Forest planning takes place at several levels: national, regional, forest, and project. The Stillwater Campground Project is a project-level analysis. Its scope is confined to addressing the significant issues and possible environmental consequences of the project. Planning for possible renovations at the Upper Stillwater Lake Campground does not attempt to address issues at national, regional, or forest levels; rather it implements direction on-the-ground provided at those higher levels.

The Flathead National Forest Land and Resource Management Plan, hereafter referred to as the Forest Plan (USDA Forest Service, 1985), embodies the provisions of the National Forest Management Act (NFMA), its implementing regulations, and other guiding documents. The Forest Plan sets forth in detail the direction for managing the land and resources of the Flathead National Forest. The Stillwater Campground Project EA tiers to the Forest Plan Final Environmental Impact Statement (FEIS), as encouraged by 40 CFR 1502.20.

The Forest Plan provides forest-wide goals and objectives on pages II-1 through II-66. Pages II-21 and II-22 have specific direction for recreation management. The Forest seeks to provide a wide array of Recreation Opportunity Spectrums (ROS). The Stillwater Campground is designated as a “semi-primitive, motorized” ROS.

The Forest Plan also uses Management Areas (MA) to guide management of NFS lands within the Flathead National Forest. Each MA provides for a unique combination of activities, practices, and uses. Chapter 3 of the Forest Plan contains a detailed description of each MA. The Stillwater Campground and immediate area was initially designated as MA 2F, 10, and 12. MA 2F was considered suitable for recreation but recommended as a candidate for a Research Natural Area (RNA). In 1997, Forest Plan Amendment #22 designated various RNAs, including nearby LeBeau RNA. However, the MA 2F around the campground area was excluded from the RNA. As described on page III-8 of Amendment #22, the area around Stillwater Campground is now MA 2B, MA 12, and the campground itself is MA 10. Table 1-1 provides a description of these MAs and Exhibit E-1 provides a map.

Table 1-1. Management Area (MA) Direction for the Stillwater Campground Area

MA	Description	Goals	Standards
2B	Unroaded lands suited for dispersed recreation that meets the ROS classification of semi-primitive, motorized.	Dispersed recreation opportunities will be managed to meet the semi-primitive motorized ROS classification.	<ul style="list-style-type: none"> - Develop minimum facility campsites at heavily used recreation spots, especially those that are water oriented, to protect resources by encouraging camping away from water. - Develop the Stillwater River Float Trail. - Develop additional trails where feasible to expand recreation opportunities. - The visual quality objective will be retention. - Lands are classified as unsuitable for timber management.
10	Lands designated as administrative sites.	Provide for the continued use of existing facilities.	<ul style="list-style-type: none"> - Lands are classified as unsuitable for timber management.
12	Riparian areas of varying width along most perennial streams, lakes, ponds, marshlands, bogs, and some important seasonal flow streams.	Enhance vegetation and wildlife diversity; maintain or enhance water quality and fisheries.	<ul style="list-style-type: none"> - Lands are classified as unsuitable for timber management. - No new trail will be constructed in riparian areas except to cross the area. - Existing trails should be relocated outside of riparian areas if erosion problems cannot be mitigated. - Off-road vehicle use is generally incompatible except snowmobiles. - Careful evaluation should occur for any new developed recreation proposals to ensure riparian area protection.

In 1995 the Inland Native Fish Strategy (INFISH) (USDA Forest Service, 1995) programatically amended the Forest Plan with goals and objectives for all riparian areas. The goals of INFISH can be characterized as providing healthy, functional riparian areas and fish habitat. Various watersheds were designated as “priority” watersheds for bull trout conservation and Upper Stillwater Lake is a priority watershed. The entire Stillwater Campground and access road is within the Riparian Habitat Conservation Area described by INFISH. The INFISH plan describes several recreation management standards (pages E-9 through E-10). Standard RM-1 notes that existing recreational facilities and their use do not prevent attainment of Riparian Management Objectives.

Project Scope

As stated above, the Stillwater Campground Project is a project-level analysis. The scope is confined to address the issues and possible environmental consequences of the alternatives. Decisions regarding potential projects for management of resources other than those described in the Proposed Action and its subsequent alternatives are outside the scope of this analysis.

The CEQ regulations implementing the NEPA require that all Federal agencies consider the following three types of actions to determine the scope of the analysis:

Connected Actions: Connected actions include closely related actions that automatically trigger other actions that may require NEPA analysis; cannot or would not proceed unless other actions are taken previously or simultaneously; or are interdependent parts of a larger action and depend on the larger action for their justification. These actions are part of the Proposed Action and include all activities needed to complete the proposed project and provide for resource protection during and after project completion. Connected Actions of the Stillwater Campground Project are the project design features itemized in Chapter 3.

Similar Actions: Similar actions are those with similarities that provide a basis for evaluating their environmental consequences together, such as timing or geography. No similar actions have been identified for the Stillwater Campground Project.

Cumulative Actions: Cumulative actions are past, present, and reasonably foreseeable actions that may have had cumulatively significant impacts when considered along with the Proposed Action. Numerous cumulative actions have been identified in and near the project area. These actions are described in Chapter 3 and are the basis of the cumulative effects analysis prepared for each resource subject.

Applicable Laws and Executive Orders

Shown on the following page is a partial list of Federal laws and Executive Orders pertaining to project-specific planning and environmental analysis on Federal lands. While most pertain to all Federal lands, some of the laws are specific to Montana. Disclosures and findings required by these laws and orders are contained in Chapter 3 of this EA.

- Multiple-Use Sustained-Yield Act of 1960
- National Historic Preservation Act of 1966 (as amended)
- National Environmental Policy Act (NEPA) of 1969 (as amended)
- Clean Air Act of 1970 (as amended)
- Endangered Species Act (ESA) of 1973 (as amended)
- National Forest Management Act (NFMA) of 1976 (as amended)
- Clean Water Act of 1977 (as amended)
- American Indian Religious Freedom Act of 1978
- Archeological Resource Protection Act of 1980
- Cave Resource Protection Act of 1988
- American Disability Act of 1994
- Executive Order 11593 (cultural resources)
- Executive Order 11988 (floodplains)
- Executive Order 11990 (wetlands)
- Executive Order 12898 (environmental justice)
- Executive Order 12962 (aquatic systems and recreational fisheries)

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CHAPTER 2 - ISSUES AND ALTERNATIVES

Introduction

Chapter 2 describes the alternatives used by the IDT to analyze the Proposed Action for the Stillwater Campground Project. The Proposed Action (Alternative B) was developed from the Purpose and Need, public scoping, and issues identified by resource specialists. Alternative C (Preferred Action) was developed to address concerns raised by further internal and external scoping. Both action alternatives meet the Purpose and Need but vary in response to issues. The No Action alternative (Alternative A) represents the baseline condition and is used for comparison of the potential effects of the actions proposed.

This chapter also presents the results of public participation, issues raised by the Proposed Action, and alternatives considered but not developed. A tabular comparison of the effects of the alternatives is displayed for potentially affected resources. This comparison, along with the narrative in Chapter 3, is designed to assist the Responsible Official in making a reasoned decision for the Stillwater Campground Project.

Public Participation

Public participation is designed to identify concerns related to the Stillwater Campground proposal. The public outreach process, or scoping, is:

“...an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action” (40 CFR 1501.7)

The public involvement strategy for this project was developed to ensure interested members of the public, along with other government agencies, received timely information related to the upcoming project and the associated planning process. A list of interested members of the public and appropriate agencies was developed and altered as needed through the planning process. The contact list included:

- Adjacent landowners
- Tribal governments
- Advocacy or user-group organizations
- Interested individuals
- Federal agencies
- Montana State agencies
- Industry groups
- Local news media.

On May 16, 2002 a letter was mailed to 35 local residents and interested parties (Exhibits B-1 and B-2). The letter contained a description of the initial proposal and a vicinity map. An additional letter was mailed to nine local landowners on September 30, 2002 to clarify the proposal and concerns regarding the county road leading to the Stillwater Campground (Exhibit B-3 and B-4). In addition, a news article describing the draft proposal for the full expansion alternative also appeared in *The Daily Inter Lake* on June 5, 2002 (Project File C-1).

Another letter and conceptual design was sent to a revised list of those who would be potentially interested in the project on July 27, 2005 (Exhibit B-8 & B-9). An updated news release was sent to the *Daily Inter Lake* and *Whitefish Pilot* August 22, 2005 (Exhibit B-13). The Forest Service also published a legal notice in the *Daily Inter Lake* on August 21, 2005 to invite comments (Exhibit B-12). The scoping letter generated an unexpected response by means of a community petition which asked for no improvements to Stillwater Campground or the surrounding area. Therefore, a fourth and final scoping letter (Exhibit B-17) was mailed on October 6, 2005 to all individuals who had previously commented or signed the petition. They were invited to a field trip at the campground on October 19, 2005. The Forest Service also placed a news release in the *Daily Inter Lake* on October 6, 2005 and the *Whitefish Pilot* on October 13, 2005 to invite anyone interested in the project to the field trip (Exhibit B-16 and B-19). The field trip gave a chance for the public to meet with the IDT to express their issues and ideas. Of the 100 petition signers, only six attended the field trip (Exhibit B-20).

The sum of all these letters, news releases, and field trip generated 14 letters, 8 phone calls, 1 written comment at the field trip, and a petition with 100 signatures. All of the comments received can be reviewed in Section D of the Project File, and IDT responses to comments are in Chapter 4. The IDT and the District Ranger thoroughly reviewed this input to help identify key issues and other concerns.

Issues

An *issue* is defined as a point of discussion, debate, or dispute concerning environmental effects of an action. Issues are identified through the scoping process with the public, other agencies, and Forest Service personnel. This process is used to identify relevancy to the project and its environmental issues, but also screen out issues that are not relevant, thereby narrowing the scope of the analysis.

An important component of the issue identification process is to describe or link cause-and-effect relationships between actions and effects. Some issues are used to develop alternatives to the Proposed Action.

To identify issues specific to the Stillwater Campground Project, the Responsible Official and the IDT reviewed all public comments and information about historical and current conditions within the project area. They also reviewed the Forest Plan and other site-specific planning documents relevant to the Stillwater Campground area to further develop a list of issues.

The Responsible Official and the IDT then sorted the issues into three categories. “*Key issues*,” which drive the alternative development process. The team also analyzed “*additional concerns*,” which are recognized as important, but do not drive the alternative development process. In addition, the team classified some issues as “*issues outside the scope of the analysis*.” Examples of issues outside the scope of the analysis include issues that are already decided by law or regulations, or beyond the scope of the project (not related to the purpose and need).

The IDT and Responsible Official then determined what *indicators* to use to measure how each alternative responded to the identified issues.

Key Issues

The Proposed Action, or “Alternative B,” includes multiple campsites built on the hillside adjacent to the lake, a host site, a fishing pier, and 0.6 miles of a campground loop road to access the campsites. The primary concern related to this proposal was:

1. *Too much development.* The existing campground and boat launch is popular with local residents. The concern is that any proposed developments could increase use beyond current levels and detract from enjoyment of the local users.

Additional Concerns

A number of comments requested that the proposal be modified to address the effects on wildlife, fisheries, and social and economics factors. The IDT also identified additional potential concerns. These comments and concerns were used to refine the Proposed Action into an additional alternative to minimized concerns. The effects of the alternatives on environmental resources are disclosed in Chapter 3. The following is a list of other concerns raised by internal and external scoping and the way in which they are addressed in this document:

1. *Disturbance to Upper Stillwater Lake wildlife.* Upper Stillwater Lake provides habitat for several uncommon wildlife species. Otters, tundra swans, bald eagles, common loons, and osprey all use the lake for feeding, nesting, or as a resting place during migration. These species are all sensitive to disturbances. An increase of boating use on the lake or an increase of noise and use at the campground could influence the use of the lake by wildlife. This will be addressed in the Wildlife Section in Chapter 3.
2. *Bull Trout.* Bull trout, a species listed as “threatened,” is found in Upper Stillwater Lake. Any proposals to increase human use through improved access could have impacts on this species. Potential effects are disclosed in the Fisheries Section in Chapter 3.
3. *Water Quality.* The campground and access road are located in riparian areas along Upper Stillwater Lake and the Stillwater River. These areas are currently being impacted by the existing dispersed use. Uncontrolled increased use of the area could result in further damage and erosion. This concern is analyzed in the Aquatic Section of Chapter 3.
4. *Sensitive Plants.* There are a variety of habitat types in the project area. This has raised concern about potential effects to “sensitive” plant species. A botanical survey has been completed and potential impacts are address in the Sensitive and Threatened Plant Section of Chapter 3.
5. *Boat Launch Access.* Boaters who desire use of Stillwater Lake have stated they have had difficulty maneuvering in the parking lot with trailers due to crowded conditions. It is currently used for tents and to park vehicles and trailers while on the lake. The existing

ramp has loose gravel and protruding large rocks that make launch difficult for some users. This concern is addressed in the design of the alternatives.

Issues outside the Scope of the Analysis

Two additional issues were raised but were determined to be beyond the Scope of the Analysis. These issues are outside the legal, environmental, geographic, or temporal influence of the proposal; are already decided by the Forest Plan or existing public laws; or are not related to the Purpose and Need for action.

1. County Road Improvements that pass by private land. Residents living along the county road, that accesses the Stillwater Campground, have concerns about increased dust, vehicular traffic, and speed if the campground is renovated. There are also concerns about the safety of children and pets playing or walking along the road.

The Forest Service proposes to repair and maintain the portion of this road on National Forest System land. This does not include the portion running from Highway 93 to Forest lands (past the railroad tracks) because this portion of the road is managed by Flathead County. Installation of any desired dust abatement or speed traps needs to be coordinated with the County. Because this road is under the jurisdiction of the County, this issue is outside the scope of this analysis.

2. Railroad Crossing. The railroad crossing was identified as a hazard for large vehicles towing boats and campers to Stillwater Campground.

This crossing is outside of the Forest Service's jurisdiction. This issue is outside the scope of the analysis.

Alternatives Considered in Detail

The IDT considered three alternatives in detail. This includes a No Action Alternative (A), the Proposed Action Alternative (B), and the "Preferred Alternative" (C).

Alternative A - "The No Action Alternative"

The CEQ regulations (40 CFR 1502.14d) require that a "No Action Alternative" be analyzed in every EA. This alternative represents the existing condition against which the action alternatives are compared. Alternative A proposed no changes to the Stillwater Campground, access road, or boat ramp. It does not preclude any activities identified under previous decisions nor does it preclude any other present or reasonably foreseeable actions that could take place in the area (identified in Chapter 3).

Alternative B - "The Proposed Action"

In order to meet the Purpose and Need, this alternative seeks to repair and upgrade the campground in a manner that best meets current accessibility standards. Figure 2-1 illustrates the Proposed Action. The new campground area would total about 2.5 acres.

This alternative would create five developed drive-in campsites, each with a gravel spur, table, fire grate, trail, and tent pad. Tables would be in a fixed concrete base with wood tops. Fire grates would be a combination of fire ring and grate. Both the tables and the fire grates would be accessible to people with disabilities. The entire parking spur at each camp site would be leveled and hardened with native materials. The spurs would be designed for moderate to small camping units. Rock barriers would be installed to define each spur and along the access road to help control use. A trail would provide access from each campsite to the lakeshore.

A loop road, approximately 1000 feet long, would be built to reach the five campsites. The southernmost campsite would be designated for a host site and have a buried vault toilet capable of being pumped out by a sewage truck.

In addition to five drive-in campsites, there would be two walk-in campsites for tent campers just north of the access road along the Stillwater River. Campers who use the designated tent sites would park at the day use area. These tent sites may not be accessible to wheelchairs.

The lakeshore and area currently used for camping would be restored by planting with native shrubs and grass. The old picnic tables and fire grates would be removed. Camping would not be allowed at this location but day use would be allowed. A bench would be installed west of the boat launch facing the lake.

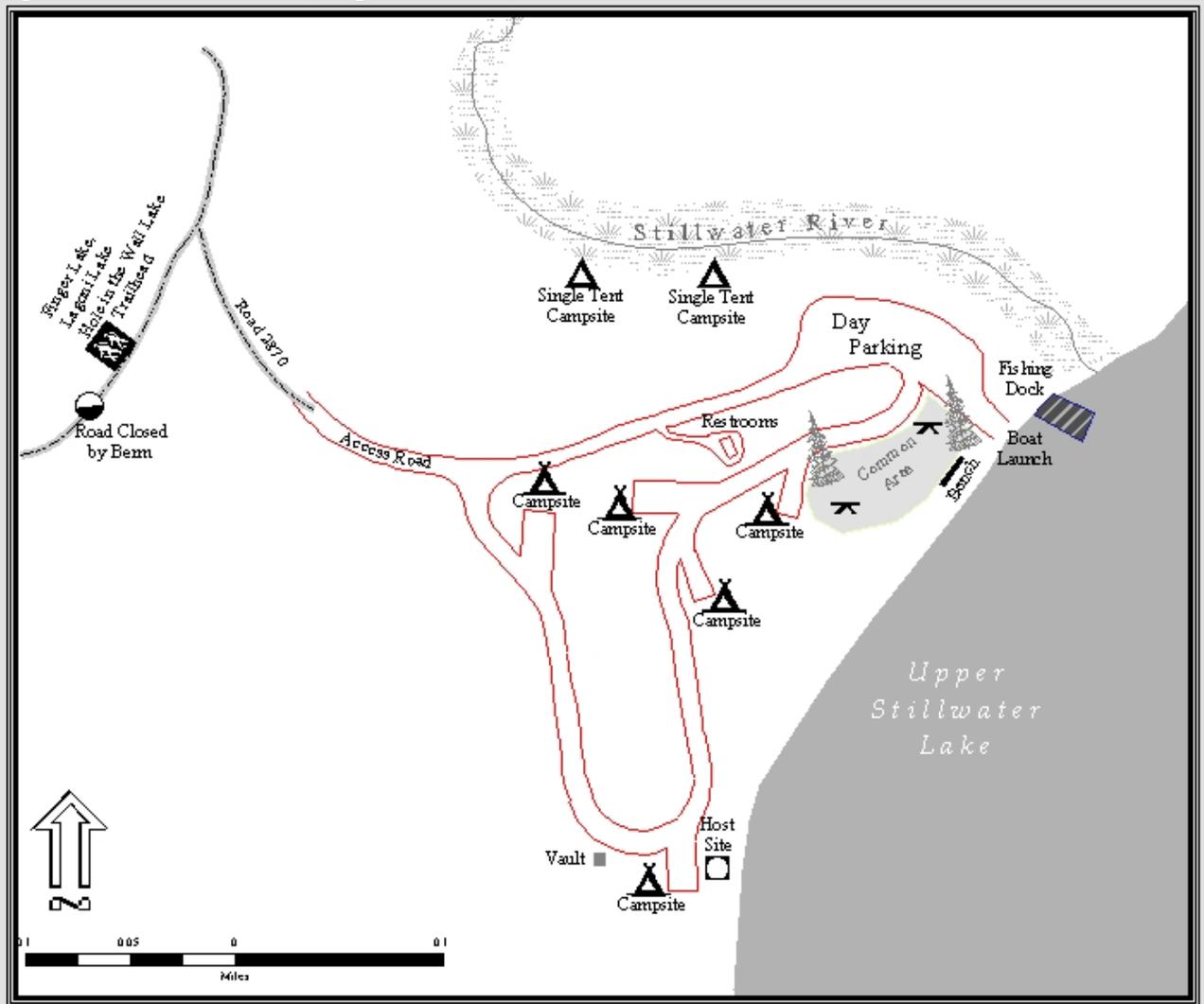
The day use parking area would remain approximately the same size, but leveled with crushed gravel. Large rocks would be placed at the edge of the wooded areas and day use area to prevent vehicular traffic. The existing vault toilet would remain in place.

The existing boat launch would remain in place but improved by removing protruding boulders and adding washed gravel. This improvement is designed to reduce the amount of surface erosion entering the lake while maintaining the size of trailers and boats that are currently using the site.

The Proposed Action includes construction of an accessible fishing pier. The pier would be constructed east of the boat ramp on the lake and extend toward the convergence with the river. The pier would be constructed out of wood instead of cement, steel, or other materials. There is no final design at this time.

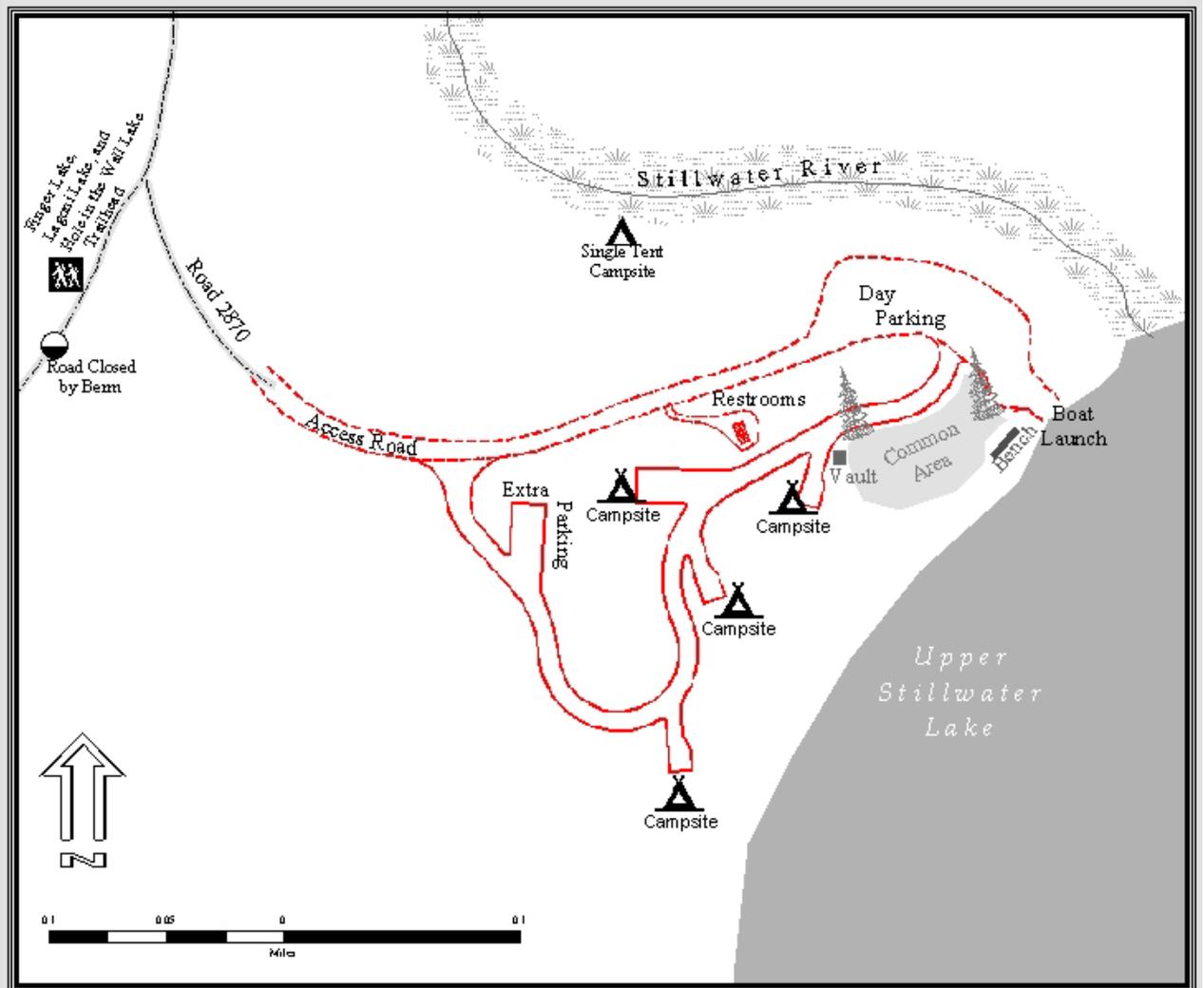
The access road (Forest Road 2870) would be reconstructed on approximately 0.5 miles on National Forest System (NFS) lands. The road would be graded to remove potholes and overlaid with crushed gravel. Drainage features would be installed to reduce erosion. No changes would be made at the railroad crossing and no work would occur on the bridge over the Stillwater River as this is not NFS land or jurisdiction.

A new sign for the site would be installed approximately one-quarter mile up the road from the campground. An additional sign saying "Upper Stillwater Lake Campground" would be installed at the beginning of the loop road to the upper camp sites. Information about fishing regulations, campground regulations, and wildlife would be posted on a bulletin board, and each campsite would be identified with a site number.

Figure 2-1. Alternative B (Proposed Action)**Alternative C - "Preferred Alternative"**

This alternative modifies the Proposed Action to address issues raised during scoping, particularly with the local users. Their concern is related to impacts from increased traffic and use on Upper Stillwater Lake. This alternative reduces the amount of change proposed for the Campground and maintains the rural setting of the Upper Stillwater Lake area.

The Preferred Alternative would create four drive-in campsites with a gravel spur for parking. Each would have an accessible table, fire grate, tent pad, and a bear pole would be centrally located for food storage. The spurs would be a hardened, back-in style with crushed gravel allowing for a moderate to small camping unit. Rock barriers would be installed to define each spur. No hiking trails from the camping sites to the lake would be created. Figure 2-2 illustrates this alternative.

Figure 2-2. Alternative C (Preferred Alternative)

A loop road, approximately 650 feet long, would be built to reach the four camping sites. The host site would not be designated, but a buried sewage vault would be installed by the campsite closest to the boat ramp for administrative uses. This vault would be locked and not available to visitors.

One walk-in campsite would be designated just north of the access road near the Stillwater River. Similar to the Proposed Action, this campsite is intended for tent campers and would have a fire grate and bear pole, but may not be accessible to wheelchairs.

The day use parking area would remain approximately the same size as it is now. Similar to the Proposed Action, the parking area would be leveled with crushed gravel and defined with large rocks around the perimeter. However, this alternative would also construct a small overflow parking area located on the campground loop road. The overflow parking would accommodate one or two vehicles.

Similar to the Proposed Action, this alternative includes minor repairs to the boat ramp. However, this alternative includes the construction of more boat trailer turning space located just west of the boat ramp. This turning space is intended to reduce congestion in the day use parking lot. It is not intended to make the ramp more accessible to larger boats or increase use.

The Preferred Alternative does not include an accessible fishing pier.

Restoration of the shoreline and old campsite is included to mitigate existing resource damage. A common day use grassy area with a bench would be constructed. No change is proposed for the existing vault toilet.

Reconstruction of the access road is the same as described in the Proposed Action, as is the signage for the camping loop.

No entrance sign or approach sign would be installed. An additional sign would be attached to the existing Highway 93 sign saying “Not Recommended for Large Towed Vehicles.”

The table below summarizes the features of the three alternatives.

Table 2-1. Summary of Features of the Alternatives for the Stillwater Campground Project

Project Description	Alt. A No Action	Alt. B Proposed Action	Alt. C Preferred Alternative
Drive-in camping sites with parking spurs and tent pads	0	5	4
Loop Road construction	No	1000'	650'
Approximate size of campground area	1.5 acres	2.5 acres	2.0 acres
Tent site (walk-in)	1	2	1
Picnic tables and pad replacements	2	5	4
Fire grates	2	7	5
Convert lakeshore camp sites to day use only	No	Yes	Yes
Bench overlooking Lake	No	1	1
Boat launch repair	No	Yes	Yes
Create boat trailer turn around area	No	No	Yes
Accessible fishing pier	No	Yes	No
Rehabilitate shoreline	No	Yes	Yes
Rock barrier consisting of approx. 15 rocks to delineate Day Use Parking	No	Yes	Yes
Overflow Parking Area	No	No	Yes
Buried septic vault	No	1	1
Designated Host Site	No	Yes	No
Access Road Reconstruction	No	0.5 miles	0.5 miles
Site Approach Sign	No	1	No
Entrance Sign	No	1	No
Information Board	No	1	1
Bear Poles	No	No	2

Alternatives Considered but Eliminated From Detailed Study

Alternatives are different approaches to meeting the Purpose and Need for the decision. The IDT developed and analyzed the effects of two action alternatives and a No Action Alternative. However, two additional alternatives were also considered but not pursued.

“Shoreline Restoration Only”

Due to concern about the potential impacts from increased boat use on wildlife, an alternative was proposed that addresses restoration of the shoreline only. This alternative would have rehabilitated the shoreline and possibly allowed a few campsites similar to the existing situation. The alternative would not have repaired the road or the boat ramp and would not have developed a drive-in camping loop. The objective was to discourage an increase in boating use on the lake but try to address existing resource damage.

This alternative was not developed because it does not fully meet the Purpose and Need of the project. The alternative does not provide for public safety (the road and boat launch remain a hazard) and it does not resolve the user conflicts at the existing boat ramp and day use parking area. This alternative also does not fully meet the Forest Plan direction to provide minimum camping facilities in this area.

“More Development”

On the October 19, 2005 public field trip, several citizens commented that they would like to see the Stillwater Campground developed further than described in the Proposed Action. Suggestions included a RV dump station, a large RV camping spur and a footbridge that allows campers to reach the other side of the Stillwater River to recreate.

This alternative was not developed because it conflicts with the Forest Plan objective for the Stillwater Area. The project area is MA 2B which focuses on developing minimum camping facilities and protecting resources by encouraging camping away from the water. The construction of a large RV campsite and a RV dump station is not considered a minimum camping facility in the current ROS designation. Although a footbridge may be feasible to build, it is also not in line with the area designation and would likely lead to resource damage.

Features Common to All Activities

The following items would occur with either action alternative, or a combination chosen by the Responsible Official:

Timing of Activities

A contract would be awarded to the successful bidder in the winter of 2007/2008 and implemented during summer of 2008. Completion of the renovation would be expected within one operating season after the contract is awarded and work begins. Site preparation and re-vegetation would be completed as soon as possible. The boat ramp would remain open during construction as much as possible but camping would be restricted in 2008 until completion of the project.

Aquatics

To ensure compliance with State Water Quality Standards, all of the activities associated with road construction and maintenance would be completed using Montana Best Management Practices (BMP). Sediment control devices would be maintained during construction at the campground and boat launch. The final design would comply with the 1975 EPA anti-degradation policy. Any work completed on the boat ramp would meet Flathead County Lakeshore Protection regulations. No work is proposed that would require an Alternative Practice of the Montana Stream Management Zone (SMZ) act.

Wildlife Security

All contractors, and others implementing the project, would be required to comply with a food-storage and sanitation order.

Vegetation

Timber - Some trees would be felled and removed to accommodate work on the road and campsites. Hazard trees (broken tops, dying trees, etc) identified within the bounds of the campground would also be removed for public safety. Trees identified to remain would be protected as much as possible but some openings are desirable for sunlight exposure in the campsites. A vegetation plan would be completed for the entire area. It is expected many of the trees removed would have commercial value and would be sold.

Noxious Weeds - Noxious weeds and non-native plants are always a concern. The new camping spurs and section of road would be revegetated with a designated native seed mix for erosion control and to prevent establishment of undesirable plant species.

During project implementation, construction equipment used in the area would be washed free of weed seeds before arriving at and prior to leaving the work site. This action is consistent with recommendations in "An Evaluation of Noxious Weeds in the Lolo, Bitterroot, and Flathead Forests" (Losensky 1987). If weeds are discovered in the campground, some herbicide treatment may be applied as described in the 2000 Flathead National Forest Noxious and Invasive Weed Control Decision Notice as amended in 2007.

Roads

The road on NFS land would be reconstructed to include current drainage guidelines and stabilized with a layer of crushed gravel. Dust abatement and blading would occur as needed.

Heritage Resources

Field investigation has been completed in accordance with the National Historic Preservation Act. This includes consultation with the State Historic Preservation Office, the Advisory Council on Historic Preservation, and local Native American Groups. Special provisions for protecting cultural resources would be included in the contract to ensure protection of cultural sites.

Scenic (Visual) Resource

The campground renovation project was designed and approved by a landscape architect. The architect ensured that visual and scenic standards would be met in accordance with the Forest Plan.

Monitoring

Monitoring is gathering information and observing management activities in order to provide a basis for periodic evaluation of Forest Plan goals and objectives. The purpose is to determine how well objectives have been met and how closely management standards have been applied during the campground renovation. Evaluation of the monitoring results would assist in the review in the conditions of the land as required by National Forest Management Act regulations. It may result in decisions for further action, such as modifying management practices.

Wildlife

Monitoring of loon and eagle nesting success would continue during the nesting seasons before and after implementation of campground improvements.

Roads

Forest Service representatives would ensure compliance with road construction and maintenance specifications. They would also monitor for the intent of management practices. If the designed work does not meet the objectives and management practices, a modification may be made by the Forest Service Representative to change the work to meet these practices.

Aquatics and Fisheries

Potential sediment sources (such as soil exposed during road construction/reconstruction) would be assessed and, if needed, stabilized to protect water quality and fish habitat. Areas of disturbed soil, as a result of campground renovation and road reconstruction, would be monitored for revegetation.

Comparison of Alternatives

The following tables summarize the effects of the alternatives. The first table (2-2) compares how well each alternative meets the Purpose and Need. The second table (2-3) displays the effects of each alternative for each resource related to issue indicators; the only Key Issue identified was “Too Much Development.” And the third table (2-4) is a comparison of the effects between alternatives. See Chapter 3 for detailed analyses of the environmental effects of the alternatives by resource.

Table 2-2. Responsiveness of Alternatives to Purpose and Need

Purpose & Need	Alternative A No Action	Alternative B Proposed Action	Alternative C Preferred Alternative
Meet Forest Plan Direction (MA 2B)	Partially	Yes	Yes
Provide for Public Safety	No	Yes	Yes
Reduce User Conflicts	No	Yes	Yes
Prevent Resource Damage	No	Yes	Yes

Table 2-3. Response of Alternatives to the Key Issue

Issue Indicators for “Too Much Development” Issue:	Alternative A No Action	Alternative B Proposed Action	Alternative C Preferred Alternative
Number of Drive-in Campsites	0	5	4
Number of Walk-in Campsites	1	2	1
Length of Loop Road	0	1000 feet	650 feet
Size of Campground Area	1.5 acres	2.5 acres	2.0 acres
Accessible Fishing Pier	No	Yes	No
Designated Host Site	No	Yes	No

Table 2-4. Comparison of Environmental Effects

Environmental Consequences by Resource	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3 Preferred Alternative
Water Resources			
Meets state water quality standards and Clean Water Act	Yes	Yes	Yes
Wildlife			
Effects on endangered gray wolf	May Affect – Not Likely to Adversely Affect	May Affect – Not Likely to Adversely Affect	May Affect – Not Likely to Adversely Affect
Effects on threatened grizzly bear and Canada lynx	May Affect – Not Likely to Adversely Affect	May Affect – Not Likely to Adversely Affect	May Affect – Not Likely to Adversely Affect
Impacts on sensitive northern bog lemming, flammulated owl, northern goshawk, northern leopard frog, western big-eared bat, and black-backed woodpecker	No Impact	No Impact	No Impact
Impacts on sensitive bald eagle, boreal toad, common loon, fisher, harlequin duck, peregrine falcon, and wolverine	May affect individuals and habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability	May affect individuals and habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability	May affect individuals and habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability
Fisheries			
Effects on threatened bull trout	No Effect	No Effect	No Effect
Impacts on sensitive cutthroat trout	No Impact	No Impact	No Impact
Threatened & Sensitive Plants			
Effects on threatened <i>Howellia aquatilis</i> and <i>Silene spaldingii</i>	No Effect	No Effect	No Effect
Impact determination for all sensitive plant species	No Impact	May affect individuals and habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability	May affect individuals and habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability
Social Environment			
Boat & fishing access	Will remain congested at launch with continued conflict between day use and camping.	Less crowded for boat launch but some difficulty would remain to turn around boat trailers. Fishing pier would provide accessible fishing.	Less crowded at boat launch and better trailer turn-around. Launch is still gravel and shallow but now level.

CHAPTER 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Introduction

This chapter is organized by each of the various forest resources that could be affected by actions proposed by this project. Each resource area is organized into an *Introduction*, a description of the *Analysis Area* for that resource as defined by the geographic and temporal boundaries used to express current resource conditions, the *Affected Environment's* existing condition and regulatory framework, the *Environmental Consequences* of the proposed actions, and the *Regulatory Consistency*. The boundaries of the analysis area are used to determine the extent and magnitude of direct, indirect, and cumulative effects in the section on environmental consequences. The size of the affected area is strongly related to the issue and is a function of the science (biology, geology, ecology) of the resource.

The Environmental Consequences section discusses the environmental effects that would occur for each alternative. The resource discussions form the scientific and analytical basis for the alternative comparisons presented at the end of Chapter 2. The effects of the No-Action alternative (Alternative A) form a baseline against which all other alternatives are evaluated. The narrative begins with a brief explanation of how effects were analyzed. When the effects or impacts are associated with an issue as described in Chapter 2, its relevance and tie with the issue plays an important role in the evaluation of alternatives.

Environmental effects can be direct, indirect, or cumulative. They can be long or short term in duration. Effects can be quantitative or qualitative, adverse or beneficial, actual or potential. It is important to consider timing and location of effects.

Direct effects are those that are caused by the action and occur at the same time and place. Indirect effects are those that are caused by the action and occur later in time or further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8). In most cases, direct and indirect effects are discussed together.

Cumulative effects are those that result from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions (40 CFR 1508.7). Therefore, the direct and indirect effects of each alternative are considered, and cumulative effects are then considered if direct and indirect effects exist. Table 3-1 on the following page describes other actions (past, present and reasonably foreseeable) that have the potential to contribute to cumulative effects for the resources in the area. In this chapter, these actions are considered by each resource.

Discussions under each resource include a description of the associated regulatory framework. Environmental laws such as the National Forest Management Act (NFMA) and the Endangered Species Act (ESA) provide the direction to the Forest Service for management of forest resources. These laws are interpreted and defined through the Code of Federal

Regulations (CFR's), Administrative Rules of Montana (ARM's), Forest Plan direction, Forest Service Manual direction, and Forest Service policy. The regulatory framework is helpful in relating National and Forest direction to resource analysis procedures. The regulatory framework section is followed by regulatory consistency of the effects analysis for each resource.

The general management direction of the Flathead National Forest is found in the Forest Plan. This document provides Forest-wide goals and objectives for its diverse resources (pp. II-1 through II-57), as well as more specific management direction for sub-units of the Forest, referred to as Management Areas. Alternative consistency with Forest Plan direction is determined after the effects analysis is completed. Both of the action alternatives are consistent with the Forest Plan.

Cumulative Effects Analysis

Detailed descriptions of the cumulative effects to the natural resources are provided either in this chapter or in the Project File. The following table provides a summary of the actions that were considered by each resource specialist in their cumulative effects analysis. Additional details about these actions such as maps, supporting documents, and spreadsheets are located in the Project File.

Table 3 –1. Actions Considered in the Cumulative Effects analysis

Action	Past	Present (2006 – 2007)	Reasonably Foreseeable Future
Forest Service Road 2870	This road was built around the 1940's, primarily to provide boat access to Stillwater Lake.		
County Road	Built in approximately 1940.		
Hiking trails to Lagoni Lake, Finger Lake, and Hole-in-the-wall Lake.	Hiking trail to Finger and Hole-in-the-wall Lakes were built around 1980. Road to Lagoni Lake was converted to a hiking trail in 2003.		Periodic trail maintenance (brushing, water bars) is expected.
Loon Monitoring	Ongoing	Ongoing	Ongoing
Fish Management of Lagoni Lake	Lake was treated with rotenone in 1982 to remove undesirable yellow perch and other species. Gabion barrier was also constructed in outlet stream to block re-invasion. Lake restocked with cutthroat trout.		
Railroad	Railroad tracks built in early 1900's. Crossing at FSR 2870 is signed but not gated.		Expected to be used and maintained indefinitely.

Recreation

Introduction

Recreational opportunities occurring within the analysis area most likely to be affected by this proposal include camping, fishing, and day use of the Upper Stillwater Campground. Some of these activities are concentrated in particular areas while others are dispersed along the roads, streams, and general forest areas.

Information for this analysis was gathered through observations made during routine maintenance and surveys of recreation facilities. Onsite comments from campers and day use visitors have been collected verbally for over a decade.

Analysis Area

The effects on the recreation resource are primarily associated with changes to the immediate area, neighbors along the access road, and camping and fishing opportunities at the site. The analysis area for recreation resource encompasses approximately 1.5 acres at the north end of Upper Stillwater Lake on National Forest System lands. No other dispersed or recreation activities would be impacted.

Affected Environment

At the campground: The ROS is used as a means of describing recreational settings and activities (USDA Forest Service 1986). ROS classifies the Upper Stillwater Campground as Semi-primitive Motorized, where the opportunity to interact with other users occurs but there is a moderate chance for solitude. The area is predominately natural in appearance with few on-site controls for users. Access is primarily by conventional vehicles, i.e. trucks, cars, and very small RVs. Visually, vegetation alterations are small in size with only moderate evidence of the sights and sounds of man. The facilities that are located at the campground have been integrated into the natural environment. Interaction between users is moderate in the campground during the warm summer months, and low to moderate in the spring and fall.

Upper Stillwater is one of the more popular small lakeside campgrounds located on the Tally Lake Ranger District. However, the campground has deteriorated over time and the site no longer meets present design criteria, needs, and demands. Health, safety, and resource concerns include resource damage from off-road vehicular traffic, an unvegetated core area along the lake shore, crumbling fire grates and picnic tables, lack of informational signs, and marginal road access. The campground area does not currently meet the Americans with Disabilities Act (ADA) criteria for accessibility. The lack of drainage and ditching on the access road creates large pot holes that fill with 6 to 8 inches of water during the wet season. Currently the most popular campsite (and the most level) is in the parking lot. Day users visiting the lake often find people camped in the middle of the parking lot. These crowded

conditions have resulted in some conflicts between boaters wishing to park their trailers and campers who are camping in the parking lot.

Hiking Trails: There are three hiking trails in the analysis area. All share a common trailhead and are located close to the campground. All three trails receive regular trail maintenance. Some hikers are day users and some are staying at the nearby Upper Stillwater Campground.

- **Finger Lake Trail # 802.** Trail 802 is 1.5 miles in length, accessing the popular Finger Lake bordering the LeBeau Research Natural Area.
- **Wall Lake Trail #803.** Trail 803 also provides hikers with access to a mountain lake. Wall Lake is very remote and offers hikers an opportunity to see some interesting geologic features and to fish and swim in a high mountain lake. Trail length is 1.5 miles.
- **Lagoni Lake Trail #812.** Trail 812 offers an easy walk/hike to Lagoni Lake. The trail is popular for families with children or those desiring a less strenuous hike. Both fishing and swimming are common activities at this lake. Trail length is 1.2 miles.

Fishing: Fishing is a popular activity at the Upper Stillwater Campground vicinity. Anglers target yellow perch, northern pike, rainbow trout, and also have some incidental catch of cutthroat trout and lake trout. Nearly all angling takes place from boats in the summer or on ice in the winter. Very little fishing takes place along the lake shoreline. It is assumed that most anglers are local residents and the lake does not draw much attention from out-of-county or out-of-state residents.

Upper Stillwater Lake has only one boat ramp and it is situated at the campground. In the spring and fall season, this area has been characterized by a feeling of solitude to anglers accessing the site. However, in the summer the boat ramp can become crowded. One complaint that has continued to surface from anglers is that campers in the parking area make it difficult to launch boats and park vehicles. Furthermore, the boat ramp is primitive and has several large rocks protruding, making it difficult to maneuver trailers down the ramp. The lack of a concrete pad or deepwater draft discourages most boats over 16 feet in length.

The following recreation resources exist in the analysis area but would not be directly or indirectly impacted by the project. They are described below for information only and they are not reviewed further.

Snowmobiling: Roads closed yearlong or seasonally to motorized use have a legal snowmobile season from December 1 to April 15. There are no managed or groomed snowmobile trails near the Upper Stillwater Campground. Currently, only occasional access by snow machines occurs in the winter for ice fishing.

Open/Closed Roads: The access road to the campground is open yearlong to motorized vehicles. During spring break-up, it is sometimes necessary to briefly close the road for resource concerns. Primary activities associated with the use of the road include campground and trailhead access, pleasure driving, bird watching, fishing access, mountain biking, and firewood gathering. This project does not propose to open or close any roads.

Unroaded Areas: The LeBeau Research Natural Area (RNA) is located in close proximity to the Upper Stillwater Campground, but beyond the analysis area. The LeBeau RNA has 5410 acres of the Flathead National Forest system lands and 800 acres of the Kootenai National Forest system lands. It was officially designated in 1997 as a research natural area. The significance of this area is related to the glaciations that greatly influenced its formation. The landscape offers a contrast between rocky ridges and dense vegetation. Solitude can be found due to the remote setting and lack of trails and roads. The LeBeau Research Natural Area is a non-motorized area with trails being designated non-motorized.

Visuals/Aesthetics: The visual landscape in the vicinity of the campground has been altered to allow vehicle access. Some developments in the campground area, notably picnic tables and the vault toilet, detract from a natural appearing landscape. A heavily used railroad is easily viewed from the campground area.

Environmental Consequences

The effects on the recreation resource are mostly associated with changes to the immediate area, neighbors along the access road, and camping and fishing opportunities at the site. The following evaluation of effects will focus on how the proposed changes in the campground would affect recreation opportunities.

Direct and Indirect Effects of the No Action Alternative

If Alternative A is selected, some of the existing facilities would still need to be removed for public safety concerns. The fire grates no longer function properly and the concrete bases of the picnic tables are eroding. Campers would continue to camp in the parking lot and along the shoreline. If Alternative A is selected, the boat launch would still have the large protruding rocks in the middle of the launch and there would be no additional parking for fishing boats, trailers, or day users.

Alternative A would involve no road reconstruction, so spring break-up may force the Forest Service to close the access during that period of time. There would be no road improvements such as drainage work, surfacing, and grading of the existing road that would improve recreation access. There would be no change to the characteristics of the parking area.

Direct and Indirect Effects of the Action Alternatives

Proposed Action – Alternative B:

In the campground: This alternative helps improve the recreation experience by providing facilities for a quality camping experience. There would be an increase in camper conveniences, camping sites, and number of campers at one time. The users would have separate campsites creating privacy and room to park their vehicles. All tent spots would be leveled with tent pads. The picnic tables and fire grates would be accessible and ADA compliant. The parking spur would be moderate in size to accommodate truck campers, vehicles with small trailers, and very small motor homes. Each drive-in campsite would have a view of the lake. This particular alternative has five campsites and two tent sites, an

increase over the existing condition of three sites. There is a host site that would offer security, on-site cleaning, and maintenance of the facilities during the busy season. The access road would be easier to use in that this alternative eliminates the deep ruts and large potholes that currently exist. The barren, trampled shoreline area and old campsites would be re-vegetated with native grasses and small shrubs. The revegetated shoreline would give the users a green area to sit and enjoy the lake on the new bench.

The alternative reduces user conflicts by removing the camping site in the parking area by offering a quality campsite on the campground access road. Boaters and day users would then be able to enjoy the site without feeling as though they are standing in someone's campsite.

The campground would be closed to camping during the construction phase. Boating access may be intermittently allowed except during heavy construction periods.

Hiking Trails: The hiking trails would not be affected. However, users may be temporarily displaced during campground construction.

Fishing: The large protruding rocks located in the boat launch would be chipped smooth. By smoothing out the boat launch and removing the large protruding rocks, users would be able to safely launch their boats. The actual size and length of the boat launch would not change. Fishing access during the construction period would be limited. However, once the project is complete, user conflict would be reduced and it would be easier for anglers to launch their boats and park their boat trailers.

In addition, the alternative would offer an accessible fishing dock located near the boat launch. The dock would be constructed out of wood and removed each season during the winter months. This would not be a permanent structure. This fishing dock would give campers and anglers who do not have a boat the opportunity to fish. The dock would extend towards a deep water hole, away from the shallow shoreline, greatly improving fishing success for shoreline anglers. It is anticipated that young children, elderly, and people with low mobility would be the primary users of the dock. This alternative would increase boating opportunities for people with disabilities and the general public. Docks are popular with lake users, installation of a dock could increase use on the lake by the boating public. Currently, Upper Stillwater Lake is not well known beyond the local community.

Unroaded Areas: Campground improvements would not affect the LeBeau Research Natural Area as this RNA is outside the analysis area.

Visuals/Aesthetics: Improvements would add structures and roads to the campground vicinity but would not detract from the existing aesthetic character of the area.

Preferred Alternative – Alternative C:

In the campground: The main difference with this alternative from the Proposed Action is there are only four campsites and one tent site. This alternative improves the recreation experience by providing one additional campsite over the existing condition, but the overall campground is smaller in size than Alternative B. The campground loop road would be shorter and it would eliminate the host site. The overall number of campers at one time would

increase with the one additional campsite over the existing condition. However, since camping is currently allowed in the parking area, there should not be a significant difference in number of people at one time.

Just as in the Proposed Action, Alternative C would have separate campsites, privacy, room to park vehicles, level tent spots, and accessible picnic tables and fire grates. The parking spur would be moderate in size to accommodate truck campers, vehicles with small trailers, and very small motor homes. Each drive-in campsite would have a view of the lake.

The access road improvements would eliminate the deep ruts and large potholes that currently exist. The boat launch would have a larger turn around area improving the boating access to the lake. Similar to Alternative B, this alternative reduces user conflicts in the crowded parking lot and also improves the ease of backing and turning a boat trailer. The shoreline area and old campsites would be revegetated offering a green area to sit and enjoy the lake on the new bench. The dirt and bare core areas would be restored with native grasses and small shrubs.

During the construction phase, the campground would be closed to camping. Boating access may be intermittently allowed except during heavy construction periods.

Hiking Trails: The hiking trails would not be affected. However, users may be temporarily displaced during campground construction.

Fishing: The large protruding rocks located in the boat launch would be chipped smooth. The actual size and length of boat launch would not change. There would be a larger turn around area in this alternative providing more room to launch a boat. Fishing access during the construction period would be limited. However, once the project is complete, user conflict would be reduced and it would be easier for anglers to launch their boats and park their boat trailers. This alternative would not substantially increase boat use on the lake since the boat launch would remain the same size and service smaller fishing type boats, canoes, and kayaks. This lake is a very shallow lake and in the later summer months large boats have a hard time with weeds and the size of the current boat ramp.

The fishing pier would be eliminated due to lack of funding for construction and maintenance, and environmental impacts to the shoreline vegetation during installation and seasonal removal of the pier. Also, the ROS for this site is semi-primitive motorized which allows improvements but does not call for highly developed facilities that could increase the likelihood of user concentration.

Unroaded Areas: Campground improvements would not affect the LeBeau Research Natural Area as this RNA is outside the analysis area.

Visuals/Aesthetics: Improvements would add structures and roads to the campground vicinity but would not detract from the existing aesthetic character of the area.

Cumulative Effects of the Action Alternatives

The alternatives proposed for the Upper Stillwater Campground Project would slightly change the type and available camping in the area. In doing so both action alternatives focus on increased user safety, reduced environmental impacts due to current use, reduced user conflicts, and improved accessibility. Because the Preferred Alternative does not include the fishing pier, it is not anticipated that day use of this site or adjacent area would increase. Overall, there should be a positive effect on the area. None of the actions listed in Table 3-1 would be affected by the action alternatives nor do they have an affect on the management on the campground.

Regulatory Framework and Consistency

The Forest-wide Goals relating to recreation (Forest Plan page II-5) meets the intent of these proposals. All management direction and Forest objectives must support and contribute to these goals:

- Provide a range of quality outdoor recreation opportunities within a forest environment that can be developed for visitor use and satisfaction.
- Provide a range of quality recreation opportunities, including motorized and non-motorized, in an undeveloped forest environment.

The Forest Plan established Forest-wide Standards for recreation that relate directly to the Upper Stillwater Campground Renovation Project (page II-21). Listed here are the standards that provide the framework for managing the recreation resources in the campground:

- #1 Use the ROS as a guide to provide the full array of recreation opportunities of the Forest.
- #2 Encourage Forest visitors not desiring a wilderness setting to use non-wilderness National Forest System lands which can provide for their recreation needs.
- #11 Retain the existing capacity of National Forest developed recreation sites on the Flathead National Forest during the next 10 years (1986-1996). The quality of the developed recreation opportunities available would be improved through “full-service” maintenance (2) or redesign and reconstruction of existing sites to better accommodate present and future needs. Some slight capacity changes may occur as a result of these improvements; however, the changes would provide a better service to the public. No expansion of campground capacity would be permitted if the expansion competes with campgrounds in the private sector.

The national forest land with the Flathead National Forest boundary has been divided into 22 MA's (Management Areas), each with different management goals, resource potential, and limitations. The MA for Upper Stillwater was originally 2F, which consists of lands suitable for dispersed recreation but recommended for designation as a research natural area. When the LeBeau Research Natural Area was established with Forest Plan Amendment 22 in 1997, the developed recreation area was designated MA 10 and the surrounding area MA 2B. NFS lands near riparian areas are designated MA 12.

The proposed activities in all alternatives comply with the recreation standards and guidelines of the Forest Plan. The management areas specific to recreation affected by activities involve 2B, 10, and 12 and are described in Table 1-1. Particulars of Forest Plan consistency are listed below:

- This proposal encourages Forest visitors not desiring a wilderness setting to use non-wilderness NFS lands such as the facilities at the Upper Stillwater Campground for their recreation needs.
- The Upper Stillwater Renovation project retains the existing capacity of the site and moves it closer to the Forest Plan desired condition of “full-service” maintenance. Some slight capacity changes would occur as a result of these improvements; however, the changes would provide a better service to the public. This expansion of campground capacity has not generated any comments from the private sector that this would compete with their businesses.
- Management Area 2B (Forest Plan page III-9) directs the Forest Service to develop minimum facility campsites at heavily used recreation spots, especially those that are water oriented, to protect resources by encouraging camping away from the water. The Upper Stillwater renovation proposal removes the existing campsites that are located along the water and moves them back off the shoreline. The new campsite locations would have views of the lake but would allow restoration of the shoreline.

Threatened and Sensitive Plant Species

Introduction

The Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1536(c), 50 CFR 402), requires the Forest Service to conserve endangered and threatened species. The National Forest Management Act (NFMA) and Forest Service policy direct that National Forest System (NFS) lands be managed to maintain populations of all existing native plant and animal species at or above minimum population levels.

In addition to plants protected under the ESA, the Forest Service identifies plant species for which population viability is a concern as “sensitive species” as designated by the Regional Forester ({FSM} 2670.44). Currently, 52 plant species are designated as sensitive on the Regional Forester’s sensitive plant list for the Flathead National Forest. USDA Forest Service policy requires that activities conducted on NFS lands be reviewed for possible impacts to threatened, endangered, or sensitive (TES) species ({FSM} 2670.32).

Data sources used for this analysis includes the Montana Natural Heritage Program’s (MNHP) Element Occurrence Database; the FNF’s TES Survey Atlas; and the FNF’s TES Plant Location Database. These databases include data collected from field surveys conducted by the FNF botanist, trained technicians, and other botanist contributing surveys and element occurrences to the MNHP. The project area had a botanical survey in 2001.

Analysis Area

The analysis area is the Upper Stillwater Lake Campground and immediate surrounding area.

Affected Environment

There are currently no federally listed endangered plant species in Montana. Two threatened plant species, water howellia (*Howellia aquatilis*) and Spalding’s catchfly (*Silene spaldingii*), do occur in Montana, and have been identified by the U.S. Fish and Wildlife Service as having potential to occur on the Flathead National Forest. However, water howellia or its habitat has not been found in the project area. The nearest known occurrences are located in the Swan Valley. Likewise, there are no known occurrences of Spalding’s catchfly within the proposed project area or within the Flathead National Forest. Spalding’s catchfly is only known to occur in rough fescue dominated grasslands. Suitable rough fescue habitat was not identified on aerial photos or during surveys conducted in the project area.

There are 52 recognized Regional Forester’s sensitive plants for the Flathead National Forest (Project File J-1). The MNHP database and Flathead National Forest element occurrences databases were queried to determine known occurrences within the project area and then a botanical survey was conducted in 2001. No sensitive plants are currently known to occur within the campground area. However, there are five sensitive plants known to occur within

five miles of the project area. Table 3-2 below lists the five sensitive plants found nearby and their habitat guilds.

Table 3-2. Occurrences of sensitive plants within 5 miles of the campground area, based on a query of MNHP database.

Species	Element Occurrence	Habitat guilds								
		AQ	FM	OW	RP	CS	WF	UF	GF	AS
<i>Bidens beckii</i>	06	X								
<i>Botrychium pedunculatum</i>	06				X		X			
<i>Cypripedium parviflorum</i>	69		X		X		X			
<i>Dryopteris cristata</i>	12, 21, 22, 23, 24		X		X		X			
<i>Ophioglossum pusillum</i>	02			X						
<i>Scheuchzeria palustris</i>	18			X						
<i>Scorpidium scorpioides</i>	11		X							

AQ= Aquatic; FM= Fens and Fen Margins; OW = Other Wetlands (marshes, wet meadows); RP= Riparian; CS = Moist Cliffs, Seeps, and Talus slopes; WF = Wet Coniferous Forest; UF = Upland Coniferous Forest; GF = Grasslands and Forest Openings; AS = Alpine and Subalpine

Environmental Consequences

Direct and Indirect Effects of the No Action Alternative

There have been no threatened, endangered or sensitive plants found in the area encompassed by the Stillwater Campground proposal; therefore the “No Action” alternative would have no effect to any TES plants.

Direct, Indirect, and Cumulative Effects of the Action Alternatives

The proposed Stillwater Campground Project is expected to have no direct, indirect, or cumulative effects on any known occurrences of sensitive plants within the five-mile radius of the project site. Likewise, it would have no impact on either the threatened *Howellia aquatilis* or *Silene spaldingii*. Past, present, and reasonably foreseeable actions listed at the beginning of this chapter would not contribute to any cumulative effects.

Regulatory Framework and Consistency

Threatened or endangered status affords a species and its habitat special protection from adverse effects resulting from federally authorized or funded projects. It is the responsibility of the Forest Service to design activities that contribute to the recovery of listed species in accordance with recovery plans developed as directed by the Endangered Species Act (ESA) (50 CFR part 402). The Flathead National Forest's Amendment 20 to the Forest Plan provides for conservation measures to ensure the protection of water howellia. Amendment 21 to the Forest Plan has a goal to "provide sufficient habitat to promote the recovery of threatened and endangered species and conserve the ecosystems upon which they depend."

Federal laws and direction applicable to sensitive species include the National Forest Management Act (NFMA 1976) and Forest Service Manual 2670. Amendment 21 to the Forest Plan has standards to conduct analyses to review programs and activities, to determine their potential effect on sensitive species, and to prepare a Biological Evaluation. It also states "*adverse impacts to sensitive species or their habitats should be avoided. If impacts cannot be avoided, the significance of potential adverse effects on the population or its habitat within the area of concern and on the species as a whole will be analyzed. Project decisions will not result in loss of species viability or create significant trends towards federal listing.*" Future conservation strategies for each species would present direction on maintaining habitat diversity and managing for population viability, as required by the NFMA and Forest Plan Amendment 21. The Forest Service is bound by Federal statutes (ESA, NFMA Act), regulations (USDA 9500-4) and agency policy (FSM 2670) to conserve biological diversity on NFS lands. A goal in Forest Plan Amendment 21 is to "*ensure that Forest Service actions do not contribute to the loss of viability of native species.*"

All Alternatives of the Stillwater Campground Project would meet the direction of Forest Service Manual 2670.3 (sensitive plant species) and be consistent with the Forest Plan direction for sensitive plants. In addition, the proposed project is also in compliance with ESA and Flathead Forest Plan Amendments 20 and 21, with respect to federally listed plants.

Noxious and Invasive Weeds

Introduction

Invasive plant species are non-native plants that can inhabit and negatively alter native plant communities. A number of invasive species are recognized as noxious, meaning laws have been developed to restrict their spread and effect on the environment. Typically, invasive species have the ability to spread rapidly and reproduce in high numbers, which enables them to effectively crowd out native plant populations. Some can pose serious threats to the composition, structure, and function of native plant communities.

Data sources used for this analysis include data collected from field surveys conducted by the FNF botanist and trained technicians working in the FNF noxious weed program. The project area was last surveyed in 2001, and would be surveyed again before project implementation occurs.

Analysis Area

As with listed and sensitive plants, the analysis area for weeds is the campground and immediately surrounding area.

Affected Environment

Noxious weeds are non-native plants that generally invade areas in the early stages of vegetation succession. Areas affected by road building, grazing, logging, fire, or other disturbances are most susceptible to weed invasion. Once established on a disturbed site, these undesirable plants often spread on to undisturbed adjacent areas. Areas of dense shade, and where there is competition for water and nutrients make them less susceptible to noxious weed invasion.

Field observations, road surveys, and evaluation of forest management activities indicate an expanding presence of noxious weeds surrounding the project area. Non-native plants present within the area, designated by the State of Montana as noxious include:

- Spotted Knapweed (*Centaurea maculosa*)
- Canada Thistle (*Cirsium arvense*)
- Orange Hawkweed (*Hieracium aurantiacum*)
- Tansy Ragwort (*Senecio Jacobaea*)

It is possible that people, vehicles, domestic animals and wildlife, or wind could transport any weeds currently in or adjacent to the project area. These are considered “Vectors of Spread” in current weed management guidance.

Efforts to control the spread of noxious weeds on the Forest and surrounding area include both eradication and containment measures. A cooperative effort between the Forest Service, other government agencies, and private landowners is ongoing to identify the presence and spread of noxious weeds within our range and forested communities and to identify the opportunities for control.

Environmental Consequences

Direct and Indirect Effects of the No Action Alternative

Noxious weeds generally invade sites that have been disturbed, such as the areas where camping and day use has removed native vegetation cover and exposed the underlying soil. No Action would allow continued disturbance of the shoreline, with no revegetation of native plants at this time. Therefore, it is likely that noxious weeds would continue to grow and spread. The Forest-wide noxious weed assessment and its addendums would address the control of noxious weeds in the project area and treat them as funding becomes available even under the No Action alternative.

Direct and Indirect Effects of the Action Alternatives

The existing weed populations along the access road would continue to spread whether or not the road is reconstructed. Recreational traffic is likely to slightly increase if the road is improved, so there is a potential for further seed transport. Currently, campers drive into undesignated campsites which also increases the spread of noxious weeds. This would be offset as cooperative efforts enable treatment of the area. The rate of spread is expected to decrease over time where site restoration is planned such as along the lake.

Proposed Action - Alternative B:

This alternative has less potential for weed spread than Alternative A because there would be active restoration efforts where there is bared soil, but different areas would be accessed by the proposed loop road and additional campsites. The new areas do have a lower chance of infestation because the campsites would be in a more shaded area and they would be covered with crushed gravel.

Preferred Action - Alternative C:

This proposal is most likely to have less potential for weed invasion or spread because there are fewer campsites proposed, less road construction for the loop, and the same amount of revegetation along existing disturbed sites. This alternative would also include the active restoration efforts described in Alternative B.

Cumulative Effects

The no action alternative leaves the most area in a disturbed, unmanaged condition, but it would continue to be monitored and treated through the cooperative agreement. The cool and

moist environment by the lake and river are less prone to invasive species, so minimal invasion or spread is anticipated in the project area with all alternatives.

Regulatory Framework and Consistency

In keeping with its management responsibilities, the Forest Service must consider methods to prevent the introduction and spread of non-native vegetation that might severely disrupt the natural condition of national forest lands. The designation of a plant species as a "noxious weed," and thus a target of control efforts, involves a series of value judgments. The evaluation process is based in part on State and Federal law. The Montana County Noxious Weed Management Act defines noxious weed as:

"any exotic plant species established or that may be introduced in the State which may render unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses, and which is designated: (i) as a Statewide noxious weed by rule of the department; or (ii) as a district noxious weed by a board, following public notice of intent and a public hearing." - Section 7-22-2101 MCA.

The Federal Noxious Weed Act (P.L. 93-629) contains a similar definition.

In Montana, the Montana County Noxious Weed Management Act (7-22-2101) states that it is unlawful for any person to allow noxious weeds to propagate or go to seed on their land unless they are complying with an approved weed management plan. The State law directs counties to develop weed control districts to plan and implement control efforts. The State law also directs district (county) weed boards to "make all reasonable efforts to develop and implement a noxious weed program covering all land within the district owned or administered by a federal agency" (7-22-2109 (2)(c) MCA).

The Flathead National Forest prepared a Noxious and Invasive Weed Control Environmental Assessment and Decision Notice in 2001 that outlines a process for evaluating the need for control measures. Should noxious or invasive weeds be found within the Stillwater Campground Project area, an Integrated Pest Management Strategy would be used after the need for control has been prioritized at the Forest level.

All alternatives meet Forest Plan direction for invasive plants, non-native, and non-local native plants.

Water Resources

Introduction

The Upper Stillwater Lake, similar to the Lower Stillwater Lake, is a wide spot in the Stillwater River whose water level is controlled by log jams and beaver dams that vary in size from time to time. A small, dilapidated wooden dam installed for log transport purposes exists on Upper Stillwater Lake. The valley formed by the movement of glaciers, with the soils composed of a brown volcanic ash, overlaying glacial outwash from a variety of sources. These soils have low water and nutrient holding capacities, which limits reforestation or rehabilitation potential.

Information regarding the water resource is based on field visits and experience with restoration of similar areas across the forest.

Analysis Area

The analysis area for water quality is limited to the campground and the access road. This area was selected because the effects of the proposed activities to water quality can be confined to this area. The area of the campground and road are very small compared to the area of the Stillwater River drainage above this point. Any sediment coming from the project area would be undetectable compared to the sediment load carried by the Stillwater River.

Affected Environment

The Stillwater River is a system that is known for its high sediment loads. This would be its “natural condition” even in historic times because it flows through fine soils left by the last glaciation.

The Upper Stillwater Lake Campground is located on the northernmost shore of Upper Stillwater Lake where the Stillwater River enters the lake. The existing camping sites are in or adjacent to Forest Plan MA 10 and MA 12; MA 10 are lands classified as administrative sites and MA 12 lands are places identified in the Forest Plan as riparian areas adjacent to perennial water. Some MA 2B lands, areas identified for semi-primitive motorized recreation, are nearby. The access road crosses a wet area, identifiable by wetland dependant vegetation. The road, boat launch, and campsites adjacent to the lake are currently contributing some sediment to the river and lake especially during snow melt and intense rain storms.

No portion of the watershed is considered impaired by the Montana Department of Environmental Quality.

Environmental Consequences

Direct and Indirect Effects of the No Action Alternative

With the No Action Alternative, water would continue to run through the parking lot and boat launch washing sediment into the lake. The lakeshore would also continue to be a sediment source where vegetation has been trampled and mineral soil is exposed. The access road would continue to be rutted and most likely become worse with vehicular traffic splashing mud into adjacent wet areas. Although this is not a desired condition for management of any lands within a contributing area of State waters, the input of sediment would most likely be undetectable when it is compared to the overall sediment load of the Stillwater River.

Direct and Indirect Effects of the Action Alternatives

Proposed Action – Alternative B:

This alternative includes the most construction in the campground, but also includes design criteria to limit vehicular use where it can cause the most impacts to water quality. The proposed loop road is well away from the water, and should help redirect current use patterns away from areas that are being overused and damaged. The restoration of the shoreline and user created campsites along the river would reduce existing sediment sources as would the gravel overlay on the ramp and access road. Construction of the fishing pier would involve a one-time disturbance of the shoreline and river bank. This would increase turbidity for a short period, but the effects of this activity would be short-lived as long as the structure does not obstruct flow in the river.

Overall, the effect of Alternative B would be to reduce sediment from the campground and road by revegetation of bare soils along the lake and by improving the drainage of the road, parking area, and boat ramp.

Preferred Alternative – Alternative C:

Similar to Alternative B, this alternative would restore areas where the shoreline has been denuded of vegetation. There would be fewer campsites constructed than Alternative B, which further reduces risk that campground use would cause impacts to water quality. In this alternative there would be no fishing pier, so a short term increase in turbidity in the lake would be eliminated.

Cumulative Effects

As described above, this project does not add to any detectable cumulative effects to the water quality of the Stillwater River or Upper Stillwater Lake. None of the actions listed in Table 3-1 at the beginning of this chapter would be affected by the action alternatives nor do these activities cumulatively affect water quality if an action alternative is implemented.

Regulatory Framework and Consistency

Consistency with the Forest Plan: All action alternatives are consistent with the water quality goals, objectives, and standards outlined in the current Flathead Forest Plan, as amended. This consistency would be met by application of Best Management Practices on the road leading to the campground and by the final design ensuring any new development in recreation proposals guarantee the riparian area is protected (Flathead LMP III-55).

Clean Water Act (formally know as the Federal Water Pollution Control Act): The Environmental Protection Agency is the regulatory agency for administration of the Clean Water Act. Identification of impaired water bodies and calculation of Total Maximum Daily Loads (TMDL) for these water bodies is delegated to the states. This proposal would have no direct or indirect impact on impaired streams as none are listed in the project area.

Streamside Management Zone Act: The State of Montana Streamside Management Zone (SMZ) Act of 1992 requires a minimum 50 foot wide buffer on lakes and streams such as Upper Stillwater Lake and the Stillwater River. No timber harvest activity or other prohibited actions would take place in these SMZs and therefore this project complies with the act.

Montana Lakeshore Protection Act: Each county has regulatory authority on work conducted at or near the high water mark of a lakeshore. The proposed boat ramp repair work would be reviewed by Flathead County and a permit obtained if necessary.

Environmental Protection Agency's Antidegradation Policy: This policy was developed in 1975 by EPA requiring states to maintain and protect existing in-stream water uses and the water quality necessary to protect the existing uses. Sediment control devices maintained during construction and in the final design would meet this requirement.

Montana Water Quality Standard: Water Quality Standards for Montana are outlined in the Administrative Rules of Montana and the Montana Water Pollution Control Law. Compliance with these water quality standards is ensured through the application of Best Management Practices (BMP). BMPs are a component of both action alternatives.

Storm Water Discharges - Montana Pollutant Discharge Elimination System (MPDES – ARM 17.30.1101.1117. Anticipated runoff from construction activities as well as storm and snow melt events would need to be addressed in a 318 permit and a “Storm Water Pollution Prevention Plan.”

Fisheries

Introduction

The Upper Stillwater Lake contains several native fish species as well as non-native recreational fisheries. The renovation of a campground could potentially alter the lake shoreline, the access road, and change recreational fishing. This analysis describes the existing condition of the fish population, fish habitat, and discloses how the alternatives may affect the resource.

Information regarding the fisheries resource is based on field examinations, published reports, fisheries habitat, and population inventories conducted by several government agencies. Information is stored in the project file and fisheries files of the Tally Lake Ranger District.

Analysis Area

The analysis area for this project includes all of Upper Stillwater Lake. The cumulative effects analysis area includes all connected tributaries to Upper Stillwater Lake including Duck Lake, Lagoni Lake, Bull Lake, the Upper Stillwater River, Rock Creek, Hellroaring Creek, Fitzsimmons Creek, Chepat Creek, and Russky Creek. It does not include Sunday Creek since a large waterfall near the mouth has historically blocked fish. The watershed downstream of the lake is not included as part of the affected environment. Upper Stillwater Lake's fish populations are "disjunct" with the rest of the Flathead Valley for reasons described below. All National Forest lands in the Upper Stillwater Lake watershed are considered a "priority" watershed for bull trout conservation (USDA Forest Service 1995).

Affected Environment

Existing Condition of Fish Populations: Upper Stillwater Lake is the largest lake in a string of in-channel lakes located on the Stillwater River. Historically the lake contained large populations of bull trout, cutthroat trout, and other non-game species such as largescale suckers and mountain whitefish. The lake provided excellent habitat for a complex (migratory) life history that most native fish use. Most of the fish in the lake probably hatched and reared in the headwater streams (Fitzsimmons Creek, Chepat Creek, and others) and eventually migrated downstream to Upper Stillwater Lake. The lake is relatively productive with large areas of shallow water (provides excellent foraging and rearing areas) plus a few very deep areas (thermal refugia to escape warm water). The fish then traveled back upstream to spawn as they matured. It is presumed that some fish also entered the lake while traveling up the Stillwater River. These fish could have migrated all the way from Flathead Lake and used Upper Stillwater Lake to forage and nearby tributaries to spawn, thereby allowing for genetic exchange between Upper Stillwater and Flathead Lake.

The fish populations in Upper Stillwater Lake have changed in the past century. During the turn-of-the-century, the lower Stillwater River was dramatically changed by logging drives

and development of the valley floor. The outlet of Upper Stillwater Lake has an old wooden dam that was installed to hold back logs until they were ready to be floated down the river. This dam is now decayed and does not block fish migrations, but may still be artificially raising the lake water level. The river below the lake currently has extremely poor fish habitat and no longer supports any fish migration from Flathead Lake (other than suckers). Lower Stillwater Lake is a shallow, warm water lake and probably never used much by coldwater species. Therefore, Upper Stillwater Lake is now essentially ‘disjunct’ with the rest of the Flathead valley and there is very little exchange of fish stocks.

Non-native game species were stocked in Upper Stillwater Lake decades ago and are now wild, self-sustaining populations. Non-native fish are the primary fishery for anglers at Upper Stillwater Lake. Most anglers fish from boats that are launched at the primitive gravel boat launch by the campground or through the ice in the winter. A very limited amount of fishing takes place on the shoreline by the campground (it is generally too shallow for successful fishing) or along the inlet of Upper Stillwater River. Anglers seem to especially enjoy the undeveloped nature of the lake and boat engines tend to be small due to the shallow nature of the boat launch.

Yellow perch are the most frequently caught fish species and spend their entire lives in Upper Stillwater Lake, although a very limited number of perch probably move between Upper Stillwater Lake and Lower Stillwater Lake, Duck Lake, and Lagoni Lake. Northern pike also live in the lake most of their lives but readily move up or downstream to prey on fish during favorable water flows. Northern pike probably eat a fair number of juvenile cutthroat trout and bull trout as they migrate downstream into Upper Stillwater Lake.

Rainbow trout were stocked in several drainages of the Stillwater basin and are now widespread. Rainbow trout readily hybridize with native cutthroat trout. Although not genetically tested, fisheries biologists are fairly confident that the cutthroat trout of Upper Stillwater Lake are severely hybridized with rainbow trout and are no longer truly cutthroat trout. Brook trout were also stocked in tributary streams and are now the most dominant species in the streams (but rather uncommon in the lake). Brook trout tend to out-compete cutthroat trout. Due to the existence of rainbow trout and brook trout, the outlook for cutthroat trout persistence in the Upper Stillwater Lake basin is bleak.

Bull trout are still present in Upper Stillwater Lake but their numbers are probably less than historic levels. Bull trout monitoring began in 1993, long after human-caused impacts began, and therefore it is impossible to compare it to historic levels. From 1993 to 1997, biologists mistakenly thought all bull trout spawning took place in Fitzsimmons Creek; usually seeing between three to eight redds per year (a redd is a spawning nest left in the stream and is frequently used to monitor population health). In 1998, biologists surveyed both Fitzsimmons and upper Stillwater River and found 47 redds. Since then the redd counts have dropped slightly and have ranged from 12 to 34 redds per year. However, juvenile population estimates (collected in upper Stillwater River) are on an upward trend since monitoring began in 1991.

A more recent and serious threat to bull trout is the introduction of non-native lake trout to Upper Stillwater Lake. Lake trout compete with and prey upon bull trout. The bull trout of Upper Stillwater Lake are characterized as “unhealthy” and “unstable” (Montana Bull Trout

Scientific Group 1995.) There is some uncertainty whether the population is just slightly depressed or severely jeopardized (Mark Deleray, MFWP, personal communication). The recent, healthy numbers of bull trout juveniles is encouraging but the long-term prognosis is poor considering the threat from competition with lake trout, brook trout, and northern pike.

Existing Condition of Fish Habitat: There is relatively little National Forest System land in the Upper Stillwater lake basin and there are little data on the existing condition of fish habitat. However, it is assumed water quality and fish habitat conditions are in good condition for reasons described below. Within the lake itself, the shoreline is undeveloped except for some intrusion from the railroad and the campground. The campground and boat ramp area were built many decades ago and have deteriorated somewhat. Users have denuded and compacted approximately 120 feet of the lakeshore and inlet of the river. This has resulted in some loss of habitat for juvenile fish that rely on shoreline cover but it has caused little actual erosion due to flat topography. The railroad tracks have encroached on about one mile total of shoreline on the eastern edge eliminating any possible large woody debris recruitment into the lake. The railroad tracks are very well stabilized with rip-rap (they do not erode) but expose the shoreline to sunlight and the remote possibility of a hazardous cargo spill into the lake. The existing campground has a modern vault toilet which helps prevent leaching of nutrients into the lake.

Environmental Consequences

Direct and Indirect Effects of the No Action Alternative

Under the No Action Alternative, the existing condition and use of the campground and boat launch would remain the same. The road would remain a source of sediment into the Stillwater River. Anglers would still be able to launch their boats but parking would continue to be crowded and chaotic. Fishing pressure would remain the same as now. Campers would continue to set up camp wherever they can and continue to trample and erode the lakeshore. Since it is difficult for shoreline vegetation to become re-established under heavy foot traffic, the shoreline would likely continue to be bare and would probably worsen as campers move further and further around the lake to find cool, green space. This would reduce the quality of fish habitat for juvenile fish but the significance of this is minor. No change is expected anywhere else on the lake. Spawning habitat in headwater streams are likely to remain in good condition due to BMPs that the Stillwater State Forest applies for land management. The No Action Alternative would maintain good water quality and fish habitat conditions in the Upper Stillwater Lake and its headwater tributaries.

However, even though habitat would remain unchanged, the cumulative effects are anticipated to be a continual decline of native fish populations. The spread of lake trout, rainbow trout, and brook trout would continue to threaten native cutthroat trout and bull trout. No restoration measures (such as blocking or removing non-native fish) are proposed at this time. Even with good habitat conditions, it is likely bull trout numbers would decline and possibly disappear from the Upper Stillwater Lake watershed. This projection is based on a comparison to other watersheds that faced a similar situation such as Tally Lake, Lake McDonald, Bowman Lake, Kintla Lake, Priest Lake, and, apparently Flathead Lake.

Genetically-pure cutthroat trout are also expected to decline and blend into hybridized rainbow trout populations.

Lake trout would probably continue to grow in size and numbers until they reach a maximum carrying capacity. After that, the fish would decline in size and angler satisfaction may drop. The combination of angler harvest, lake trout predation, and northern pike predation would probably result in a drop in yellow perch abundance. Yellow perch would not disappear (they have excellent fecundity in shallow lake margins) and those that remain would likely enjoy good growth rates. No long term change is expected for northern pike, brook trout, or rainbow trout. No change is anticipated in Lagoni Lake.

Direct, Indirect, and Cumulative Effects of the Action Alternatives

Proposed Action – Alternative B:

This action alternative would slightly change the condition of fish habitat and also slightly change the recreational harvest of fish. The Proposed Action is anticipated to have a slight, short-term negative impact and a slight, long-term positive impact. The short-term negative impact is from the construction of the fishing pier. Some turbidity is expected along the lakeshore during the construction of the fishing pier. Driving piers into the lake substrate would stir up sediments but quickly resettle. Fish would leave the project area during construction but then return as the sediments re-settle. No other negative impacts are expected from the project. There is no impact to installing new picnic tables, fire grates, vaults, benches, hardened campsites, and other aspects of the project in upland areas. The boat ramp would receive some maintenance by leveling off large rocks that jut up from the surface and adding spot gravel where needed. The ramp would not be widened, lengthened, hardened, or regraded. The objective is to perform maintenance, not to improve the ramp to accommodate larger boats and boat trailers. This would mean that the size of boats and number of fishing trips is likely to remain the same as the existing condition. Implementation of leveling off rocks and adding spot gravels is not expected to have any impacts to the lake water quality.

Over the long term, fish habitat is anticipated to be slightly improved by this project. Clearly designating campsites and trails, while restricting movement into fragile areas, would allow shoreline riparian vegetation to recover. The length of raw shoreline would probably decrease to just 30 feet total, mostly at the boat ramp. The re-established riparian vegetation would help provide cover and refuge for juvenile fish that hug the shoreline. While these are positive aspects, they are relatively minor in importance to fish. This is based on the very small percentage of total lakeshore impacted by the project and the unaffected condition of the inlet river.

Improving the road drainage and resurfacing the last 1000 feet of the campground road also has a minor, positive impact. Improving this portion of the road would slightly reduce all the water pooling on the rest of the road. This may slightly curtail the sedimentation into the river when vehicles travel the road but it is a very small change. The majority of the road, including the area right by the bridge, would remain in the existing condition and be a source of sediment.

The Proposed Action also includes the installation of a handicap-accessible fishing pier that extends from near the boat ramp towards a deep hole beside a beaver lodge. The installation of the pier would slightly change the recreational fishing pressure on the lake. Anglers who do not have boats (or are camping but do not always have the boat in water) would be able to fish off the dock and improve fishing success beyond the immediate lakeshore. It is anticipated the primary catch would be northern pike, yellow perch, and occasionally rainbow or cutthroat trout. Angler success rates are likely to improve and anglers would harvest more northern pike and yellow perch than the No Action Alternative. The scale of this improvement is rather minor and no adverse effects are expected to game fish (Mark Deleray, personal communication). Northern pike and rainbow trout would be harvested but not enough to make any changes in the population size structure. Yellow perch would probably be more heavily harvested.

The Proposed Action is not anticipated to have any impact to bull trout. Bull trout do not use the shoreline by the campground and it is unlikely that anglers would catch bull trout from the new fishing pier. The only initial concern was the maintenance of the boat ramp, but since the boat ramp would be the same size, no increase in boating traffic is expected.

The Proposed Action is anticipated to have a minor impact on cutthroat trout. While cutthroat trout are not usually near the shoreline of the campground, they are found in the inlet river in very low numbers. The proposed fishing pier would probably result in slightly more angler harvest of cutthroat trout.

The cumulative effects of the Proposed Action are essentially identical to the No Action Alternative. Even with the minor habitat improvement along the lakeshore and campground road, native fish populations are not expected to be affected. The Proposed Action has no impact on bull trout numbers in the Upper Stillwater Lake watershed. The fishing pier may result in a few more cutthroat trout being harvested but has no impact to the cumulative effects. None of the actions listed in Table 3-1 at the beginning of this chapter would be affected by this alternative nor do these activities cumulatively affect fisheries if this alternative is implemented.

Preferred Alternative – Alternative C:

Alternative C is a scaled back version of the Proposed Action. The difference in upland aspects of the project, such as number of campsites and picnic tables, are inconsequential to the fisheries resources. However, Alternative C does vary from Alternative B in that it drops the proposed fishing pier but incorporates a new boat ramp turn-around. Just like the Proposed Action, this alternative has a mix of small-scale positive and negative impacts to fish habitat. Eliminating the fishing pier removes any potential for short-term turbidity caused by pier construction. However, construction of a small turn-around for boat trailers is planned adjacent to the boat ramp. The turn-around area is located on a gentle slope about 40 feet from shoreline. A small amount of sedimentation from the turn-around area down the boat ramp and into the lake is inevitable. This would probably be noticeable after the first rain following construction and then gradually stabilize within a year. It is estimated that this would total just a few cubic feet of sediment. The consequence of this is decreased habitat quality for shoreline aquatic plants and fish in the immediate vicinity of the boat ramp, for

about one season. This is far too small to have an adverse impact on the overall water quality and productivity of Upper Stillwater Lake.

Over the long term, fish habitat is anticipated to be slightly improved by Alternative C. Just like the Proposed Action, Alternative C would allow shoreline riparian vegetation to recover. The length of raw shoreline would probably decrease to just 30 feet total, mostly at the boat ramp. The re-established riparian vegetation would help provide cover and refuge for juvenile fish that hug the shoreline. This alternative also includes the improvements to the campground road and its subsequent, minor improvement to reducing sediment into the Stillwater River. While these are positive aspects, they are relatively minor in importance to fish.

The objective of the new turn-around is to relieve congestion at the current turn-around area (which would be designated for parking) but it would not accommodate large boat trailers. Thus, boating use and fishing pressure from the boat ramp should remain unchanged from the existing condition. Furthermore, the elimination of the pier means that this alternative is identical to the No Action Alternative in terms of fishing pressure or patterns.

As detailed in Exhibits G-1 and G-2, this alternative is anticipated to have “no effect” on bull trout and “no impact” on cutthroat trout. This is based on the insignificance of the habitat impacts (both positive and negative) and the absence of any change to the current recreational fishing pressure.

The cumulative effects of Alternative C are essentially identical to the No Action Alternative. Even with the minor habitat improvement along the lakeshore and inlet river, fish populations are not expected to be impacted, either positively or negatively. None of the actions listed in Table 3-1 at the beginning of this chapter would be affected by this alternative nor do these activities cumulatively affect fisheries if this alternative is implemented.

Regulatory Framework and Consistency

All alternatives fully comply with Forest Plan goals, objectives, and standards. The alternatives do not lead to “unacceptable fish losses” and do not impair any key bull trout or cutthroat trout streams. The project also complies with Inland Native Fish Strategy (INFISH) standards and guidelines. Standard RM-1 allows existing campground facilities to remain in riparian areas so long as they do not prevent attainment of riparian goals or adversely impact native fish. As described above, the project is not anticipated to impair fish habitat and would not adversely impact native fish.

Bull trout are listed as a threatened species and a Biological Assessment (BA) is required for all significant federal actions. A BA has been completed and determined to have “no effect” on bull trout because of the trivial impact to habitat and the expectation that angling pressure would not increase as a result of this project.

Cutthroat trout are considered a Regional Forester’s sensitive fish species. A Biological Evaluation (BE) has been completed and determined that this project has “no impact” on cutthroat trout.

Soils Resource

Introduction

Campgrounds by design include areas (roads, trails, campsites) where the soil is compacted and vegetation growth is limited. These designated recreation use areas are not included in assessments of detrimental soil disturbance for an analysis area as they are dedicated to a public use inconsistent with the growth of trees and shrubs. Because these areas typically are not vegetated, they are vulnerable to erosion from wind and rain and therefore must be properly designed and maintained. The site plan for the campground renovation project includes features designed to prevent erosion taking place at the campground and boat launch area.

Information regarding the soil resource is based upon field examinations and information contained in the *Soil Survey of Flathead National Forest Area, Montana* (USDA 1988).

Analysis Area

The analysis area for soils is the campground and boat launch area, including the portion of the access road located on NFS lands.

Affected Environment

Soils in the campground area consist of an organic surface layer influenced by volcanic ash over a substratum comprised of coarse gravel outwash materials. Site productivity is moderately high but the coarse textured subsoil makes the area vulnerable to extended periods of drought due to low water retention capability. A high water table connected to the Stillwater River and the lake help to mitigate the effects of drought at the campground itself. The soils in the campground area are only moderately prone to erosion and erosion rates at undisturbed sites would be essentially zero.

Soils in the existing campsites are heavily compacted and vegetation growth is sparse. The soils in the boat ramp area exhibit some evidence of erosion and rutting and are likely delivering fine silt particles to the lake during rain storms and, to a lesser degree, during spring snowmelt. The portion of the access road that is on NFS land exhibits evidence of rutting during wet periods and needs drainage improvements to prevent erosion from occurring.

There is an area adjacent to the existing primitive boat ramp and near the lakeshore where off-road vehicle use has compacted the soils and resulted in a loss of vegetation. This area is likely a source of fine sediment eroding into the lake during wet periods.

Environmental Consequences

Direct and Indirect Effects of the No Action Alternative

If the No Action Alternative is selected by the decision maker, the condition of the soil resource at Upper Stillwater Lake Campground is expected to deteriorate over time. Public demand for recreation opportunities on lakes in the region is likely to continue or accelerate as a result of rapid population growth. User-created campsites, off-road vehicle use, and resultant resource damage would likely expand to impact additional areas at the campground. More soil would be denuded of vegetation and exposed to the eroding effects of wind and water, with negative impacts to water quality in the lake and river.

Direct and Indirect Effects of the Action Alternatives

The two action alternatives would have approximately equal impacts to the soil resource. Alternative B would involve more area dedicated to campsites, roads, and parking, but the direct, indirect, and cumulative impacts to soils are similar. The campsites, parking area, and access road would all have appropriate drainage controls installed to prevent erosion and a gravel overlay in these areas would add additional protection.

Areas previously utilized as campsites or damaged by off-road vehicle traffic would be rehabilitated. Rehabilitation activities would include, as needed, soil scarification, planting of native species, and construction of rock barriers or berms to prevent vehicle access. The net result of these restoration efforts coupled with proper design of new facilities would be reduced soil erosion and little or no continuing degradation of water quality at the site.

To minimize erosion and other detrimental impacts to the soil resource, all new road construction, existing road reconstruction, and campsite construction would be completed using BMPs or Soil and Water Conservation Practices (SWCPs). The practices are described in detail in the Forest Service Soil and Water Conservation Handbook (FSH 2509.22), the Soil Management Handbook (FSH 2509.18), and the Flathead Forest Plan (pages II: 40-46).

This project does not add to any detectable cumulative effects to the soil resource in the vicinity of the campground. None of the actions listed in Table 3-1 at the beginning of this chapter would be affected by the action alternatives nor do these activities cumulatively affect the soil resource if an action alternative is implemented.

Regulatory Framework and Consistency

Region 1 Soil Quality Standards - (Exhibit H-2) all proposed activities are designed to meet the Region 1 Soil Quality Standards. These standards require that soil properties and site characteristics be managed in a manner consistent with the maintenance of long-term soil productivity, soil hydrologic function, and ecosystem health.

Region 1 Supplement 2500-99-1 - (Exhibit H-3) defines an activity area as a land area affected by a management activity to which soil quality standards are applied. An example is a harvest unit within a timber sale. It also states that in areas where less than 15 percent detrimental soil conditions exist from prior activities, the cumulative detrimental effects of the current activity following project implementation and any needed restoration activities must not exceed 15 percent. In areas where more than 15 percent detrimental soil conditions exist from prior activities, the cumulative detrimental effects from project implementation and needed restoration activities should not exceed the conditions prior to the planned activity and should move toward a net improvement in soil quality.

Forest Plan Management Direction - Forest wide standards for soil resources in the Forest Plan, page II-46, are:

- 1) "Ensure that all resource management activities will maintain soil productivity and minimize erosion through implementation of:
 - Management direction presented in the Landtype Guidelines (Appendix Q);
 - Erosion Prevention Standards (Engineering Handbook Supplement)."
- 2) "Design or modify all management practices as necessary to protect land productivity."

The soil analysis indicates that all alternatives and all activities proposed by the alternatives would meet the Region 1 Soil Quality Standards through the implementation of management practices outlined in Chapter 2, implementation of BMPs, and restoration of landings and heavily used skid trails, if needed, to reduce the total amount of detrimental soil impacts. All Forest Plan management direction would be met by the proposed alternatives.

Wildlife

Introduction

The proposed project contains improvement activities that can affect wildlife use of habitat through localized campground renovation work and through current and future recreational use of the campground, boat launch, and surrounding area.

The wildlife analysis addresses wildlife habitat and specific habitat components in and near the Stillwater Campground Project area. Wildlife species and habitat will be evaluated in relation to the existing condition and potential conditions resulting from the proposed alternatives. The size and location of the area analyzed would vary with each species' habitat needs (Tables 3-3 and 3-4). The Forest Plan lists as Management Indicator Species all threatened and endangered species, sensitive species, elk, mule deer, and white-tailed deer. These species and their associated habitat characteristics will be addressed in their appropriate sections. The Canada lynx, gray wolf, and grizzly bear are the threatened or endangered wildlife occurring or potentially occurring in the project area. Sensitive species identified for the Flathead National Forest occurring in or potentially occurring in the project area include the bald eagle, boreal toad, fisher, Common loon, and wolverine. Information regarding Flathead National Forest's existing situation and evaluation of species representing the Forest's compliance with NFMA requirements for providing for plant and animal communities' diversity can be found in the referenced draft document "Flathead National Forest Evaluation and Compliance with NFMA Requirements to Provide for Animal Community Diversity" (Exhibit L-7).

Prior to the preparation of this document, a review was conducted of District and Forest wildlife records, the U.S. Fish and Wildlife Service (USFWS) list of Federally Threatened and Endangered species on the Flathead National Forest (Exhibit L-17), the Forest Service Region 1 Sensitive Species List (Exhibit L-9), and the Montana Fish, Wildlife, and Parks website (Exhibit L-17).

While many species depend on snag and downed wood habitat (Exhibits L-4 and L-5), such habitat is typically not available or is scarcely available in campground areas due to firewood cutting and removal of hazard trees. This is currently the case at Upper Stillwater Lake Campground. This habitat will not be discussed in depth in this analysis, but more information regarding dead wood habitat and impacts of firewood cutting on its availability can be found in Exhibit L-4. Old Growth habitat will likewise not be further discussed in the document, as the campground is not old growth per field review. For any riparian-associated wildlife species covered in this analysis, relevant details regarding riparian habitat are covered in the respective sections. Also refer to the "Water Resources" sections of this chapter and Exhibit L-6 for further information. The needs of species relevant to this analysis that rely on snags and downed wood, old growth, and/or riparian habitats are assessed individually, as are relevant Neotropical migratory birds. This project does not affect the amount or quality of above referenced habitat types and further information for each, as well as Neotropical migratory birds, is available in Exhibit L-7.

Table 3-3. Presence of wildlife and habitats in and near the Upper Stillwater Lake Campground Renovation Project affected area, Flathead National Forest.

Species	Status	Current Presence		
		Stillwater Sub-Basin	Sub-Watersheds	Project Area
Bald Eagle	Sensitive; MIS	Yes	Yes	Yes
Grizzly Bear	Threatened; MIS	Yes	Yes	Yes
Gray Wolf	Endangered; MIS	Yes	Yes	Yes
Canada Lynx	Threatened; MIS	Yes	Yes	Yes
Peregrine Falcon	Sensitive; MIS	Yes	Yes	Probable
Flammulated Owl	Sensitive; MIS	Probable	Probable	Unlikely
Harlequin Duck	Sensitive; MIS	Yes	Yes	Possible
Common Loon	Sensitive; MIS	Yes	Yes	Yes
Townsend's Big-eared Bat	Sensitive; MIS	Probable	Probable	Probable
Black-backed Woodpecker	Sensitive; MIS	Yes	Yes	Unlikely
Wolverine	Sensitive; MIS	Yes	Yes	Unlikely
Fisher	Sensitive; MIS	Yes	Probable	Probable
Northern Goshawk	Sensitive; MIS	Yes	Yes	Probable
Northern Leopard Frog	Sensitive; MIS	Probable	Probable	Unlikely
Boreal Toad	Sensitive; MIS	Yes	Yes	Yes
Northern Bog Lemming	Sensitive; MIS	Yes	Probable	Unlikely
Elk, Mule Deer, and White-tailed Deer	MIS	Yes	Yes	Yes
Neotropical Migrant Birds		Yes	Yes	Yes
Old Growth Species		Yes	Yes	Yes
Snags & Down Wood Habitat Species		Yes	Yes	Yes

MIS = Management Indicator Species

Table 3-4. Species-specific habitat occurrence and other issues related to the Upper Stillwater Lake Campground Renovation Project, Flathead National Forest.

Species	Habitat Comments and Issues Related to Project Area
Elk, Mule Deer, and White-tailed Deer	Year round use. Winter range occurs in the eastern and central portions of the project area.
Bald Eagle	Fish, waterfowl, and carrion provide major food sources. No nests have been found since approximately 2000, though activity has been documented annually. The campground is unlikely to be within a nest area (Zone I) due to current human activity, but it could be within the primary use area (Zone II) and it is very likely within the home range if a nest is present.
Black-backed Woodpecker	Not observed in or near the analysis area. No recently burned or insect-infested forest nearby.
Boreal Toad	Expected to be common in the Upper Stillwater area. Scattered observations of adults; reproduction verified near analysis area. Potential breeding habitat occurs in lakes, ponds, slow streams, and ditches. Likely to occur in lake as well as campground area.
Canada Lynx	Potential habitat in the vicinity of project area. Scattered sightings; relatively rare. Snowshoe hares appear to be common.
Common Loon	Known nesting on Lower Stillwater, Finger, and Dog Lakes near the analysis area and observed on several other lakes nearby.
Fisher	Potential habitat is spread across the analysis area. Reintroduced to drainage in 1980's.
Gray Wolf	Scattered reports, apparently foraging or traveling. Denning or rendezvous sites associated with nearest packs are further than 1 mile from project activities.
Grizzly Bear	Scattered reports, apparently foraging or traveling. High quality feeding habitat is naturally not abundant. No denning habitat.
Harlequin Duck	Observed once on Logan Creek; closest known reproduction is about 10 miles to the north. No potential nesting habitat.
Northern Bog Lemming	Only known occurrence on Flathead National Forest is in the Bowen Creek drainage about 15 miles to the southwest.
Northern Goshawk	Scattered sightings and potential habitat are well dispersed across the analysis area; nesting on USFS land 5 miles southeast in 1989.
Northern Leopard Frog	Very rare in Western Montana. Not known on the Flathead National Forest although it is likely they occurred historically (Maxell, et al. 2003). Closest reports are near Eureka, MT, and west of Kalispell, MT.
Peregrine Falcon	Closest known nesting 40 miles southeast. The only known potential cliff nesting habitat on the Tally Lake Ranger District is west of Tally Lake. Surveys there have not detected peregrines. No cliff habitat present. Immediate area is already developed and adjacent to an existing road. Observed hunting 2 miles NW. Potential disturbance in high-quality feeding habitat.
Flammulated Owl	Single-story ponderosa pine or Douglas-fir old forest with open understory is currently absent in the area.
Townsend's Big-eared Bat	Nearby snags, bridges, and abandoned buildings may provide roosting habitat and nearby wetlands may provide feeding habitat. Bats use bat houses in campground. No big-eared bats found in 2006 surveys.
Wolverine	Low likelihood of wandering through; not expected to inhabit campground or adjacent area due to current recreational use. Closest confirmed observation in Whitefish Range to the east.

Data used in this analysis included field surveys and observation records, road locations, geographical information system (GIS) data, research literature, and personal communications with individuals knowledgeable about the area. The criteria used to determine which species not to carry forward for further analysis included lack of habitat and lack of effects to the habitat of a species from any of the alternatives (Table 3-5).

Table 3-5. Species not being included in the detailed effects analysis for the Upper Stillwater Lake Campground Renovation Project, and rationale.

Species	Rationale
Black-backed Woodpecker	No habitat to support black-backed woodpeckers. No change in potential to support black-backed woodpecker. Therefore all of the alternatives would have No Impact on black-backed woodpeckers.
Harlequin Duck	No potential nesting habitat. No actions would occur in or near habitat where harlequin ducks were once observed. Therefore all of the alternatives would have No Impact on harlequin ducks.
Northern Bog Lemming	Limited potential habitat occurs within the Stillwater sub-basin, but not within the project or analysis area. There are no sightings in the vicinity and no impacts on potential habitat. Therefore, all of the alternatives would have No Impact on bog lemmings or their habitat.
Northern Leopard Frog	There are no sightings in the vicinity (Maxell, et al. 2003) and no impacts on potential habitat. Therefore, all of the alternatives would have No Impact on leopard frogs or their habitat.
Flammulated Owl	The campground does not include single-story ponderosa pine or Douglas-fir old forest with open understory. Therefore all of the alternatives would have No Impact on flammulated owls.
Townsend's Big-eared Bat	None found in 2006 surveys. The campground does not include potential roosting or feeding habitat.
Northern Goshawk	No potential nesting habitat. No actions would occur in or near habitat where goshawks have been observed. Therefore all of the alternatives would have No Impact on northern goshawks.

The affected environment for all wildlife species has been shaped by past and present cumulative effects to this species. These effects would be cumulative to those discussed for each alternative.

For an assessment of wildlife species' viability at the Forest level, see the Final Environmental Impact Statement for the Flathead Forest Plan Amendment 21 (USDA 1999) and Exhibit L-7.

Commonly Hunted Big Game

Introduction

The three most common ungulates (white-tailed deer, mule deer, and elk) are used as Management Indicator Species for the commonly hunted big game species (Forest Plan II-21). At the forest level, meeting these species' habitat needs indicates that the needs of species such as black bear, moose, and mountain lion will also be met. Their basic habitat needs of cover, forage, and security are similar and may be altered by human actions in similar ways (Joslin and Youmans 1999, Witmer, et al. 1998). During the formulation of the Forest Plan, it was assumed that standards designed for elk would also be adequate for mule deer because they both tend to use similar habitats. Because the Upper Stillwater Lake Campground is adjacent to water and white-tailed deer are abundant in the area, the habitat analysis for this project also applies to white-tailed deer.

Recreational use by humans can alter habitat use by large mammals, either seasonally or year-round, through displacement, habituation, habitat alteration, and loss of security (Canfield, et al. 1999). Numerous studies have reported varying degrees of disturbance to ungulates from winter activities such as snowmobiling and cross-country skiing (Canfield, et al. 1999), resulting in energy expenditure and apparent stress. The quality and quantity of wintering habitat influences ungulate population size and health. Harsh winter weather and deep snow can cause intense crowding onto small portions of winter range.

This analysis evaluates whether some renovation operations could alter potential ungulate habitat, or habitat use was determined through GIS data regarding ungulate distribution and winter range.

The effects on elk, mule deer, and white-tailed deer are discussed in terms of the Upper Stillwater Lake Campground's spatial relationship to potential and known winter and summer range, as well as ease of human access. The analysis was conducted through GIS analysis of the different types of use areas near the campground (Exhibit L-1).

Analysis Area

The analysis area for commonly hunted big game is based on Montana Department of Fish, Wildlife, and Parks winter range surrounding Upper Stillwater Lake. The area extends from about three-fourths of a mile southeast of the south end of Upper Stillwater Lake to about three and a half miles northwest of the campground and is about three miles wide (Exhibit L-2). Hiding cover, summer thermal cover, available water, security areas, and foraging areas are distributed across the area. The area is winter range, as mentioned above, although it is not a Forest Plan designated Winter Range Management Area. It is sufficiently large enough to evaluate the ability of the habitat to support populations of big game and the species under their MIS "umbrella," but small enough to not obscure the effects of the alternatives. All of the actions proposed in the alternatives are contained within the campground, boat ramp/fishing pier area, and access road. Elk Habitat Analysis Units (HAU) were determined

for the Flathead National Forest by wildlife biologists from the Forest and Montana Department of Fish, Wildlife, and Parks. The northern portion of the LeBeau Stillwater HAU is included in the analysis area.

Affected Environment

The area provides year-round habitat for populations of elk, mule deer, and white-tailed deer. Foraging habitat for ungulates is not limited in this area. The campground is in an area mapped as elk winter range through an interagency mapping effort. There has been no timber harvest since the late 1980s on Forest Service lands in the analysis area, but several recent sales have occurred on state and private land near Upper Stillwater Lake. There are also numerous natural openings in the area. White-tailed deer use of the area is likely extensive due to the amount of important winter range habitat and intact riparian cover. Elk and mule deer that use the analysis area are relatively common and their populations are thought to be stable (Exhibit L-2). Ungulate populations, especially white-tailed deer, appear to be at healthy numbers, particularly in the winter. No specific ungulate calving or fawning sites have been identified in the analysis area.

Information regarding current activities and conditions are also discussed in the Cumulative Effects section below. The campground access road is open year-round and the surrounding area receives high recreational use, as described above, but sufficient elk security areas are present elsewhere in the HAU. Average road densities in the surrounding drainages are discussed in the Grizzly Bear section below. Moist sites are also an important characteristic of elk habitat. Numerous seeps and springs are well distributed throughout the Upper Stillwater Basin, meeting the definition of “elk moist sites” as defined in the Forest Plan. There are numerous natural openings in the area.

Environmental Consequences

Direct and Indirect Effects of the No Action Alternative

No actions are proposed with this alternative. There would be no expected change in ungulate use or travel. Current recreational use may displace or disturb ungulates any time of year.

Direct and Indirect Effects of the Action Alternative

There would be an expected small-scale effect on ungulate species’ movements or habitat use patterns during campground renovation operations and with increased human use of the campground and lake. No change would be expected in ungulate population numbers or their availability to wolves as prey or as carrion. Hiding and thermal cover, hunting season security, foraging areas, connectivity, and key use areas would not be altered by this project.

The new campsite loop would involve removal of brush and trees but this would occur adjacent to existing campsites, user created sites, and the existing access road. No forested connections would be severed.

Cumulative Effects

As stated above, the area surrounding the campground contains established human activities and developments including roads and trails, railroad tracks, US Highway 93, and numerous recreational opportunities. Open and closed roads and trails facilitate human access across the area. Winter use includes snowmobiling and ice fishing. Logging would likely continue on private land in and near the action area and DNRC timber sales are expected to occur in the general Dog Lake and Dog Mountain areas (within the action area) in the near future (Garrett Schairer, pers. comm. 2005). No additional Forest Service vegetative manipulation or timber sales are expected in the analysis area, although the Fortine Ranger District of the Kootenai National Forest is in the early stages of formulating a timber harvest/ecosystem management project just to the east of the analysis area. To the south of the analysis area, timber harvest and road construction would occur or continue in the Logan Creek, Valley Face, and Beaver Lake fuels reduction and ecosystem restoration projects. Resource management activities (including timber harvest, thinning, prescribed fire, mechanical treatments, and road and trail improvement work) would be on-going in the Martin and Good Creek drainages under the Good Creek Resource Management Project Record of Decision. The closest treatment unit is about three miles south of the campground. There have been no timber management activities on FS land in the action area since the 1980s.

Numerous recreational opportunities across the analysis area, including motorized trail riding and even hiking, can cause displacement of big game species. Big game hunting takes a proportion of the ungulate population every year (Exhibit L-2), as do road collisions and predation. Open road densities are described in the Grizzly Bear section for the existing situation. Increasing subdivision of private land has altered habitats and displaced deer and elk from prime areas. Dogs that run free kill many deer directly or by wasting their energy reserves, particularly in winter (Sime 1999). On NFS land, ease of human access has stabilized over the last decade or so, as new roads built for logging are generally reclaimed or closed soon after use.

A reasonably foreseeable action would be measures to control tansy ragwort and other weed species, which would have positive effects on ungulates by improving forage availability. Livestock grazing on NFS lands has been at low intensity, but has altered forage availability in the past. On private land, grazing and fencing for wild and domestic animals has reduced forage and altered movement patterns. Predator control in the early part of the last century reduced or negated the selective pressures provided by predators. Beaver control reduced the amount of wetland habitat that white-tailed deer and elk often prefer.

Regulatory Framework and Consistency

Flathead National Forest Plan Amendment 21 establishes a Forest-wide goal to “provide appropriate habitat and access to maintain desired hunting, fishing, and viewing opportunities, in coordination with the Montana Department of Fish, Wildlife, and Parks.” The Forest Plan has identified white-tailed deer, elk, and mule deer as Commonly Hunted Big Game Management Indicator Species (MIS) that use general forest habitat. Conditions favorable to these species would generally also benefit other big game species, such as moose, black bear, and mountain lion, which are considered under the umbrella of Forest-level MIS evaluation.

The MDFWP includes habitat goal recommendations in their big game management plans, specifically the Statewide Elk Plan (MDFWP 2004, Exhibit L-3). Flathead Forest Plan Amendment 21 has an objective to provide sufficient habitat to contribute towards meeting the objectives of MDFWP's management plans. The State elk plan calls for an increase in elk population in the Salish Elk Management Unit, which includes the Upper Stillwater Lake. The Forest Plan Amendment 21 objective to provide sufficient habitat to contribute toward meeting the objectives of MDFWP's management plans is met by all action alternatives.

Moist sites are also identified as an important characteristic of elk habitat and management considerations have been outlined in the Forest Plan (pages II-22 and 23). Standards for moist sites would be met by all alternatives.

All alternatives are consistent with biodiversity requirements for wildlife species. The analysis for Forest Plan Amendment 21 assessed the forest-level viability of elk and mule deer (USDA Forest Service 1999). Regardless of scale, species viability is not a concern for elk or deer, as further assessed in the referenced draft document "Flathead National Forest Evaluation and Compliance with NFMA Requirements to Provide for Animal Community Diversity" (Exhibit L-7). These species are habitat generalists and all indications are that healthy populations are well distributed across the western states, Montana, and the Flathead National Forest. In Montana and on the Flathead National Forest, this is evidenced by liberal hunting seasons administered by the Montana Department of Fish, Wildlife, and Parks. In northwest Montana, the rapid recovery of the gray wolf is also evidence of substantial ungulate populations, which comprise their primary food source.

Threatened, Endangered, and Sensitive Wildlife Species

Two wildlife species that occur on the Flathead National Forest are federally listed as threatened: grizzly bear and Canada lynx. The gray wolf is listed as endangered. The United States Fish and Wildlife Service (USFWS) concur with the list of species that may occur in the analysis area (Exhibit L-17). All three threatened or endangered species will be covered in this chapter, with the subsection for grizzly bear combined with that for the gray wolf. A Biological Assessment for Threatened and Endangered Wildlife Species was prepared (Exhibit L-24). Consultation with USFWS is documented in L-18 exhibits.

Sensitive wildlife species (Tables 3-3 and 3-4, above, and Exhibit L-9) are those that show evidence of a current or predicted downward trend in population numbers or habitat suitability that would substantially reduce species distribution. The Regional Forester identified 12 sensitive wildlife species on the Flathead National Forest (Exhibit L-9), recently augmented by the bald eagle. The flammulated owl, black-backed woodpecker, harlequin duck, northern leopard frog, and northern bog lemming are sensitive wildlife species that will not be affected by this project and thus will not be discussed further (Table 3-5, above; Exhibits L-8, L-9, L-10, L-24). The Biological Evaluation for Sensitive Wildlife Species has been incorporated into the text of this document, with a separate signature page in the project file (Exhibit L-24).

Information about the Regulatory Framework and Regulatory Consistency for all of these species is at the end of the section.

For more information about the species herein and their habitat at various scales, including that of the Flathead National Forest, see Exhibit L-7. Further information for species with documented sightings is also available in the wildlife biologist's files at the Tally Lake Ranger District.

Introduction—Bald Eagle

The bald eagle was recently delisted, in August 2007, although it was analyzed as a threatened species for this project. The analysis area is within the Pacific States Bald Eagle Recovery Area (U.S. Fish and Wildlife Service 1986) and the Upper Columbia Basin Zone (Zone 7). In the 1986 Recovery Plan, the recovery goal for de-listing bald eagles in Montana was 99 breeding pairs (U.S. Fish and Wildlife Service 1986).

In Montana, bald eagles nest in stands containing very large trees with uneven canopy structure and in direct line of sight of a large river or lake generally less than one mile away (Montana Bald Eagle Working Group 1994). Bald eagles are opportunistic feeders. They prey on fish, waterfowl, and small mammals; steal food from other predators; and scavenge carrion. During the breeding season, important foraging habitat may be ten miles or further from their nest.

Since the current nest location for this territory is unknown, the analysis area for bald eagles was determined by establishing a one mile buffer around Upper Stillwater Lake to encompass

most likely nesting habitat, and then establishing an additional 2.5 mile buffer around the lake to encompass possible primary use area (Exhibit L-21, L-24). Cumulative effects were determined using a generic 10 mile buffer around the lake.

This analysis evaluates whether some renovation operations could alter potential nesting habitat, disturb foraging bald eagles, and/or affect their aquatic prey base. Effects were determined by examining the potential nest stand requirements used in the Upper Stillwater Lake Nesting Territory Draft Site-Specific Guidelines (Montana Bald Eagle Working Group 1994).

Affected Environment—Bald Eagle

The Upper Stillwater area is located in the Pacific States Bald Eagle Recovery Area and in Management Zone 7 (Upper Columbia Basin), which includes all of Montana west of the Continental Divide. This zone is in the middle of the core population and produces more than half of the eaglets in the state (Exhibits L-7, L-25). In the 2005 nesting season, there were 149 active bald eagle nests in western Montana (Exhibit L-25). Bald eagle populations and productivity are increasing in Zone 7, as well as across the state (Exhibits L-7, L-25). Population growth has been attributed largely to the substantial reduction of environmental contaminants. There are six known nesting pairs in the Salish Mountain portion of the Tally Lake Ranger District and Stillwater State Forest. Table 3-6 summarizes the situation for bald eagles in the Stillwater analysis area.

Table 3-6. Bald Eagle Population and Habitat Status.

Bald Eagle Activity	Nest Site	Roost Sites	Foraging Habitat
Current activity observed, current nest location not known	Historic nests were located near the outlet of Upper Stillwater Lake. No nests have been found since approximately 2000, though eagle activity has been documented annually. The campground is unlikely to be within a nest area (Zone I) due to current human activity, but could be within the primary use area (Zone II) and is very likely within the home range if a nest is present in the area.	None	Abundant sources, including fish, waterfowl, rodents and carrion. Campground is within year-round foraging habitat.

The campground is within the historic Stillwater Bald Eagle Nesting Territory, hereafter referred to as the Stillwater Territory. Nesting was documented in the Stillwater Territory from 1972 to 2000. Five different trees were used and all nests were within 1700 feet (0.33 mile) of the outlet of Upper Stillwater Lake (approximately 1.5 miles southeast of the campground, within the action area). No nest has been found in that area since 2000 or earlier, though adult and juvenile eagles have continued to use the area to the present time. Nesting has also been suspected in the Dog Lake or Dog Mountain areas, two to three miles southeast of the campground.

Site-specific guidelines for the historic Stillwater Lake Nesting Territory were not completed. Preparation of these guidelines was in progress in 2000, when the resident eagles apparently abandoned the documented nest area. At that time, nest site area (Zone I), primary use area

(Zone II), and home range (Zone III) were mapped per generic one-quarter, one-half, and 2.5 mile guidelines (Montana Bald Eagle Working Group 1994). Evaluation of unoccupied habitat for potential to support nesting eagles is complicated by variability in structure and habitat choices throughout their range (Montana Bald Eagle Working Group 1994). Currently, Upper Stillwater Lake and Dog Lake could be considered potential nesting lakes for this territory.

According to the Upper Stillwater Lake Nesting Territory Draft Site-Specific Guidelines, “the nesting territory is expected to contain a wealth of excellent nest stands over time” (Jacobs and Kuennen, in prep.). In 1998, the authors screened potential alternate nest stands associated with Upper Stillwater and Dog Lakes. They determined that 23 stands (about 776 acres) were potential nest stands (suitable for bald eagle nesting now or within 50 years) and that 13 stands (about 470 acres) were Future Potential Nest Stands (suitable for bald eagle nesting in 50 or more years) using six criteria (see Table 3-7) (Montana Bald Eagle Working Group 1994). Future nest stands met only the first five criteria (Jacobs and Kuennen, in prep.).

Table 3-7. Potential nest stand requirements used in the Upper Stillwater Lake Nesting Territory Draft Site-Specific Guidelines (Montana Bald Eagle Working Group 1994).

Requirement
Having an Associated Water Body of > 40 acres or a > 4th order stream with adjacent areas supporting a sufficient food supply for nesting bald eagles.
Within 1 mile of the Associated Water Body.
Within topographic line-of-sight of the Associated Water Body.
Within 600 feet elevation of the Associated Water Body.
Capable of supporting bald eagle nest trees (not too wet or too rocky).
Having suitable nest trees > 25" dbh.

Food sources appear to be diverse and abundant. Nearby water bodies provide several species of large fish and fisherman’s discards and gut piles, and eagles may also steal fish from ospreys, otters, and other predators (Jacobs and Kuennen, in prep.). Portions of the Stillwater River north and south of Upper Stillwater Lake typically remain unfrozen during winter, as does a stretch of the lake beginning at the inlet and extending more than one-third the length of the lake. Fields near the lake support ground squirrel populations, beaver and muskrat lodges lie along the shore, and water birds nest and congregate in several local water bodies (Jacobs and Kuennen, in prep.). Highway 93 and the railroad tracks both provide carrion; and bears, mountain lions, and wolves may also provide carcasses (Jacobs and Kuennen, in prep.). Bald eagles are regularly seen perched close to the campground. There are no known concentrated feeding sites in the analysis area.

The Whitefish Range and the Flathead Valley are part of a known migration corridor, about six miles east of the campground. No known concentrated roost areas exist in the action area, though there is a possible new roost area at Ashley Lake at the southern end of the Tally Lake Ranger District, more than 25 miles from the campground.

For additional information regarding current and historical use and condition of the campground and surrounding area, see the “Affected Environment” section above for Commonly Hunted Big Game.

Environmental Consequences—Bald Eagle

Direct and Indirect Effects of the No Action Alternative

No actions are proposed with this alternative. Some disturbance would continue to occur in areas likely to be within Zones II and III if the new nest for the Stillwater Territory is within one mile of historic nest sites, due to recreational activities associated with the existing boat ramp and camp sites. Existing camp sites would retain screening from foraging areas, and no change in type of use would be expected. Standing dead trees may be removed by campers for firewood, and live and dead hazard trees would continue to be removed for public safety, so that some emergent trees may be removed over time.

Direct and Indirect Effects of the Action Alternatives

Potential nest habitat is not likely to include the campground due to current human activity and lack of observed evidence of nesting in the area despite annual monitoring by state and federal wildlife and recreation personnel. Therefore there would not likely be additional disturbances in potential nesting habitat beyond those in the baseline condition. The primary use area (Zone II) of a current or future nest could include the campground, but improvement activities are expected to be low intensity, emergent trees would be protected, and screening of campsites from the shoreline would be maintained or enhanced (though trees may be removed that pose a safety risk). The home range for this territory is very likely to include the campground, due to its proximity to potential nest habitat around Upper Stillwater and Dog Lakes, as described above.

Bald eagle foraging activity may overlap with potential disturbance in both alternatives due to improvement activities and increased or changed human use. Increased post-improvement campground use would be localized and therefore not expected to displace eagles beyond that of the baseline condition. The introduction of the fishing pier in Alternative B could result in increased human use adjacent to areas where eagles have been observed foraging.

The proposed project would have no negative direct, indirect, or cumulative effects to bald eagle roosting, migrating, or wintering habitat, nor would it have any anticipated effects on mortality risk.

Cumulative Effects

Cumulative effects on bald eagles are varied. Cumulative effects in the area include state and private timber harvesting and private land development, which may have increased the availability of upland prey while decreasing roost sites, screening cover, and potential nest trees. As stated in the “Commonly Hunted Big Game” section above, the area surrounding the campground contains established human activities and developments including roads and

trails, railroad tracks, US Highway 93, and numerous recreational opportunities. Open and closed roads and trails facilitate human access across the area.

Logging would likely continue on private land in and near the action area and DNRC timber sales are expected to occur in the general Dog Lake and Dog Mountain areas (within the action area) in the near future (Garrett Schairer, pers. comm. 2005). No additional Forest Service vegetative manipulation or timber sales are expected in the analysis area, although the Fortine Ranger District of the Kootenai National Forest is in the early stages of formulating a timber harvest/ecosystem management project just to the east of the analysis area. No further predator control efforts are anticipated, although past eagle mortalities in the larger Stillwater area may have been due to lead poisoning. The area surrounding the campground contains established human activities and developments including roads and trails, railroad tracks, US Highway 93, and numerous recreational opportunities. Open and closed roads and trails facilitate human access across the area.

See the section on “Commonly Hunted Big Game,” above, for further site and habitat information and for history of human use in the vicinity of the campground. Refer to the Affected Environment Section above for nesting history for Upper Stillwater Lake. Initial building of the campground probably prevented future nesting on the northern shore and the inlet to the lake. As stated earlier, potential nest habitat is not likely to include the campground due to current human activity and lack of observed evidence of nesting in the area, despite annual monitoring by state and federal wildlife and recreation personnel.

Introduction—Canada Lynx

The Canada lynx (*Lynx canadensis*) is a disturbance-dependent species (Ruggiero, et al. 1999). In the Northern Rockies, lynx evolved with a fire regime that created new feeding opportunities in young stands and along edges, while leaving behind a mosaic of travel connections and dense older stands with downed wood. Koehler (1990), Ruediger, et al. (2000), and Ruggiero, et al. (1999) describe the lynx’s habitats as:

Feeding Habitat: Lynx typically feed in areas that support their primary prey, the snowshoe hare. These are most often early successional sapling forest or older stands with a dense layer of saplings and lower branches that maximizes cover and browse at both the ground level and at varying snow depths throughout the winter. Hares usually begin to recolonize sapling areas six to seven years after succession is reinitiated.

Denning Habitat: Lynx most often den in mesic old growth or mature forest, some of which also qualifies as feeding habitat.

Travel/Other Habitat: Lynx use forested cover for traveling between denning habitat and feeding habitat. Lynx seem to prefer to move through continuous live forest and frequently travel along forested saddles, ridges, and riparian areas.

The lynx is federally listed as a threatened species on the Flathead National Forest. The elimination of cover for this species and its primary prey, the snowshoe hare, can have negative short-term effects on lynx (Koehler and Aubrey 1994). This is especially true where

large openings are created without leaving travel connections between pockets of dense young forest and older forests used for denning. The causes of this include timber harvest, precommercial thinning, and wildland fire. Stands up to 15 years old, while unsuitable to lynx in the short term, are needed to provide feeding habitat in the future. Similarly, after a short-term loss of habitat value, precommercial thinning may extend the duration of hare use because hares are believed to return to the stand for a longer time after thinning (Squires, per. comm. 1998). Timber harvest or salvage generally reduces downed woody material, while in some cases accelerating regeneration of the green canopy cover used by lynx and its prey. An insect epidemic or fire can provide a great influx of downed logs, providing denning sites and cover for lynx kittens. Non-target trapping mortality is correlated with ease of human access into an area during prime trapping season. Human activity in spring and summer, especially motorized use, may force lynx to move kittens.

Following information found in Ruggiero, et al. (1999), primary lynx habitat in the Rocky Mountains and on the Flathead National Forest includes stands dominated by lodgepole pine, subalpine fir, and Engelmann spruce. Moist Douglas-fir types are considered secondary habitat that can support red squirrels, an alternate prey species for lynx during periods when snowshoe hare densities are low. In Montana west of the Continental Divide, lynx habitat is contained in subalpine fir habitat types, generally between 4000 and 7000 feet in elevation (Exhibit L-26).

Lynx Analysis Units were used to assess the effects of proposed actions on lynx and lynx habitats, considering information found in the Lynx Conservation and Assessment Strategy (Ruediger, et al. 2000). Evaluation of potential effects considered the Canada Lynx Conservation Assessment and Strategy (LCAS) (Lynx Biology Team 2000, Exhibit L-27).

Affected Environment—Canada Lynx

Canada Lynx habitat is widespread across the Flathead National Forest. A Regional, multi-scale lynx habitat assessment by Hillis, et al. (2002) derived estimates of the proportions of feeding and unsuitable habitat components at the forest-scale and compared them to what could be expected to have existed prior to vegetative changes due to fire suppression and/or substantial logging (Table 3-8).

Table 3-8. Levels of lynx habitat components in the Flathead National Forest compared with Larger Scales.

Habitat Component	HRV*	LCAS standard**	Flathead National Forest	Region One
Unsuitable	9.5%	30% max	9.7%	9.2%
Feeding	19%	NA	8.9%	5.4%
Denning	10%	10% min	Not available	15.1%

* HRV (Historic Range of Variability) reflects the average conditions before fire suppression or logging substantially changed vegetative pattern in lynx habitat.

** Considered as a recommendation for assessing effects.

The presence of lynx on the Flathead National Forest is well-documented through trap records, track surveys, and incidental observations. Across the Salish Mountains portion of the Tally Lake Ranger District, lynx or their sign have been reported nine times since 1988, and one time in the decade before that. The most recent reports of lynx and their sign in and near the Good and Martin Creek drainages, both directly southwest of the campground, were in 1992 and in 1999. The reports include a lynx with two kittens near Miller Creek in October 1988, an individual shot east of Trixie Creek in 1991, and an adult seen near Fox Mountain in 1999. Also in 1999, two kittens that may have been lynx were seen along Plume Creek, less than two miles from the lynx sighting. This information is summarized in Table 3-9.

Table 3-9. Canada Lynx Population and Habitat Status.

Canada Lynx Activity	Project in Lynx Habitat	Project in Lynx Feeding Habitat	Project in Lynx Denning Habitat
Lynx have been reported near the Project Area.	Yes	No	No

The potential lynx habitat map currently used for the Flathead National Forest was created using forest-level data to determine habitat types, with definitions based primarily on Ruggiero, et al. (1999) and Ruediger, et al. (2000). Following established mapping guidelines, stand-level dry habitat types are no longer to be considered potential lynx habitat. Tally Lake Ranger District specialists have updated their area to reflect the stand level data for potential lynx habitat. This updated mapping led to the inclusion of the entire Good and Martin Creek drainages, including the campground, as potential lynx habitat, though none of these areas were initially mapped as such. The nearby LeBeau Research Natural Area is unroaded and is nearly all pole-sized and older forest, including an over 700 acre rectangular block of old growth which appears to be potential denning habitat for lynx. The campground itself is classified as lynx “travel/other” habitat.

Snowshoe hares appear to be abundant throughout much of the Tally Lake Ranger District, including areas adjacent to the campground, particularly along roads and in dense and moderately dense sapling-to-pole sized stands. Potential denning habitat is also fairly well distributed.

Commercial timber harvest has fragmented the mid- and late-seral forests in the Salish Mountains portion of the Tally Lake Ranger District to a substantial degree. Open road densities are fairly high across the District. Snowmobiles are allowed to travel almost everywhere off-road, although over-snow travel is restricted for part of the winter on most closed roads. Several trappers have used the District and apparently a few still do. Wildlife that could prey on lynx are fairly common and widespread wherever snows are not relatively deep.

Suitable denning, feeding, and travel habitat has been harvested or thinned across national forest, corporate, and private lands, generally leaving low levels of snags and large downed wood. No vegetation management activities are planned on national forest lands in the analysis area. Timber harvest and road construction in the adjacent Good Creek drainage is expected to continue under the 2000 Good Creek Resource Management Project Record of Decision.

For additional information regarding current and historical use and condition of the campground and surrounding area, see the “Affected Environment” and “Cumulative Effects” sections above for Bald Eagle and Commonly Hunted Big Game.

Environmental Consequences—Canada Lynx

Direct and Indirect Effects of the No Action Alternative

No actions are proposed with this alternative. The non-availability of denning and feeding sites and the availability of hiding sites would not be expected to change, as recreational use is expected to continue and downed wood would continue to be removed as firewood.

Direct and Indirect Effects of the Action Alternatives

This project would not cause the area to be converted to permanent non-lynx habitat. This area is not denning or feeding habitat for lynx. The ability of lynx to travel across the action area would not be affected by the proposed campground improvements. Forested connectivity would also not be affected. See the section on Direct, Indirect, and Cumulative Effects for the gray wolf for more information about cover-related effects of the proposal.

Road related brushing would be minimal (localized) with both alternatives and would occur in the construction of the campground loop and four to five camp sites. Minimal brushing would be needed for road improvements leading to the campground.

Lynx are generally tolerant of humans (Ruediger, et al. 2000) and are not necessarily displaced by human presence. The Upper Stillwater Lake Campground was given a “No Effect” determination in a biological assessment dealing with lynx issues relevant to ongoing projects and permits on the Flathead National Forest. The campground was stated to have “little or no winter use.” The existing campground is used spring through fall and the lake is used recreationally year-round, but the roads to the campground are not plowed in winter.

Proposed management is consistent with all recommended standards and guidelines of the LCAS and with current science, such as Ruggiero, et al. (1999) and Ruediger, et al. (2000).

Cumulative Effects

Private development and state and private timber harvest practices in this drainage have altered the availability of lynx denning habitat, prey habitat, and forested connectivity. See the section on Direct, Indirect, and Cumulative Effects for the gray wolf for anticipated state and private actions in the analysis area.

During pre-European times, lynx were apparently much more common. Probably due to trapping, lynx were extremely scarce in the first half of the last century in Montana, with specimen records restricted to two western counties. Roads constructed across Western Montana and the analysis area have facilitated access for fur trappers and firewood cutters. Firewood cutting along open roads has decreased downed logs important for lynx and their prey species. Snowmobile access is generally not limited on Forest Service lands in the

analysis area. The project is not anticipated to alter winter recreation in the area. On about half of the roads in the district, snowmobile use is not restricted; it is allowed only after November 30 on the remainder of the roads. Many of the residents in the analysis area live there year-round, but they are at a low density. Over 80 percent of the analysis area is less than five miles from the plowed road, and thus most lynx using this area would be most vulnerable to trapping. The analysis area is part of MDFWP's Region 1, which, along with Region 2, has an annual quota of one lynx harvested through trapping.

The cumulative effect of this proposed project would not preclude lynx use of habitats in the area. Adverse cumulative effects are not expected with project implementation. See above for additional cumulative effects that are in common with those for bald eagles. The Valley Face, Logan Creek, and Beaver Lakes projects are south of the analysis area for lynx.

All alternatives are consistent with the relevant standards as recommended in the Lynx Conservation Assessment and Strategy (Ruediger et. al 2000); see Exhibit L-24.

Introduction—Common Loon

Common loons (*Gavia immer*) are USFS Region One Sensitive species. Loons are totally dependent on water and are exceedingly awkward on land. They typically nest on lakes larger than 20 acres and in shallow bays with vegetative cover. Fish make up about 90 percent of a loon's diet, and clear water is required for their underwater foraging technique. The quality and quantity of water flowing into loon lakes affects their ability to support prey species as well as influences the water clarity. Water level fluctuations during nesting season can flood a nest or leave it high and dry, both of which are likely to cause abandonment. During the nesting season, Montana's loons are extremely sensitive to human disturbance. Recreational uses that cause prolonged and/or consistent disturbances can cause stress to loons and inhibit nest site selection (Hamann, et al. 1999).

The analysis area for loons for direct and indirect effects is extended to include all of Upper Stillwater Lake, and the area used for bald eagle cumulative affects was also used for loons in order to encompass the nearest known nests on the lower half of Upper Stillwater Lake.

For more information about effects analysis methods, conclusions, and cumulative effects, see the "Water Resources" and "Fisheries" sections of this chapter. For additional information regarding current and historical human use and condition of the campground and surrounding area, see the "Affected Environment" sections above for Bald eagle and Commonly Hunted Big Game.

Affected Environment—Common Loon

The southern edge of the loon's breeding range extends into the United States across many of the eastern states and into the Rocky Mountains. Northwest Montana supports nearly all of the loon reproduction in the western United States. The original extent of the population is unknown, although populations have declined with the settlement of the west. Currently,

there are around 60 successfully breeding pairs and approximately 200 birds in the total Montana population (Evers 2004).

Loon observations are often reported for Upper Stillwater Lake, and two or three sites are used annually on the lake for nesting. Nesting is reported most years for these nests, and for one nest on Lower Stillwater Lake, Finger Lake, and one on nearby Dog Lake. No chicks were successfully fledged in 2006 from Upper Stillwater or Dog Lake nests, but the Lower Stillwater Lake pair successfully fledged one chick, and two chicks were fledged at Finger Lake. All four pairs were monitored by Loon Rangers, employed by multiple agencies in the area, including Forest Service and Montana Fish, Wildlife, and Parks, in cooperation with the Montana Loon Society. Protective measures for the Lower Stillwater Lake nest included placement of floating signs around the nest and education of recreational users by Loon Rangers.

Loons are occasionally reported in the vicinity of the campground, but they are frequently observed in the southern half of the lake, as well as “Middle Stillwater Lake,” Lower Stillwater Lake, Dog Lake, Finger Lake, and other small lakes in the area (see Exhibit L-14).

For additional information regarding current and historical use and condition of the campground and surrounding area, see the “Affected Environment” and “Cumulative Effects” sections above for Bald eagle and Commonly Hunted Big Game.

Environmental Consequences—Common Loon

Direct and Indirect Effects of the No Action Alternative

No additional actions are proposed with this alternative. Current and future recreational users of the site would continue to have the potential to disturb feeding loons as well as nesting loons, especially if traveling to or beyond the southern half of Upper Stillwater Lake. Any improperly disposed of fishing tackle would continue to pose a risk to loons, as would the use of lead sinkers, which have been known to kill loons via lead poisoning.

Direct and Indirect Effects of the Action Alternatives

The campground shoreline is not potential nesting habitat and neither renovation activities nor improvements would be expected to reduce potential nesting habitat. Feeding loons may be disturbed by renovation activities or by use of the fishing pier included in Alternative B. Shoreline revegetation efforts common to both alternatives should help screen camping areas and minimize or preclude additional disturbance related to camping use. The fishing pier proposed in Alternative B could lead to additional disturbance for the northern portion of the lake. The boat ramp would not be deepened or altered in any way expected to result in use by larger boats, although additional boats could increase disturbance to loons. Risks regarding improperly disposed-of fishing tackle and the use of lead sinkers would remain, as described under Alternative A above. See the “Water Resources” and “Fisheries” sections of this chapter for more information.

The portion of Upper Stillwater Lake that contains the campground is north of the narrow passageway known as “the narrows.” This area is most passable in early spring, before thick vegetation keeps most motorized boats from traveling through to the southern end of the lake (which contains the three typical loon territories for Upper Stillwater Lake described earlier). Increased boat use in the spring could potentially reduce the amount of vegetation that currently discourages boat passage later in the season.

Cumulative Effects

A considerable amount of nesting habitat has been lost due to the development of shoreline areas on low-elevation lakes nearby, such as Ashley Lake, Whitefish Lake, Skyles Lake, and Blanchard Lake. Besides direct loss of nesting and nursery habitat, loon reproduction tends to be most seriously affected by disturbance from recreationists. Public education focused on loons and bald eagles has been used on nesting lakes since at least 1988 in cooperation with the Montana Loon Society. An annual loon census organized by the Montana Loon Society has shown an overall upward trend in the number of lakes with adults and the number of adults in Montana, with number of chicks, overall population, and chick to adult ratio now showing a fairly level trend (Exhibit L-16).

See above for additional cumulative effects that are in common with those for bald eagles. Cumulative effects relevant to common loons are further discussed in sections on “Water Resources” and “Fisheries” in this chapter.

Introduction—Peregrine Falcon

Peregrine falcons (*Falco peregrinus*) are considered a USFS Region One sensitive species. Peregrine falcons were classified as Endangered in Montana under the Endangered Species Act, until they were delisted in 1999. Strategies to protect and recover populations in Montana are outlined in the American Peregrine Falcon Recovery Plan (USFWS 1984; also Forest Plan Appendix SS). They are also legally protected under the Migratory Bird Treaty Act (1918) and the Lacey Act (1901). About 295,500 acres of “suitable unoccupied” habitat were identified across the Northern Region. Fifteen primary potential nesting sites were located across the Flathead National Forest, including the “Upper Stillwater Lake Area.” However, the mossy, broken cliffs present in the Stillwater area do not appear to meet peregrine nesting needs.

The analysis area for peregrine falcons for direct and indirect effects, as for loons, is extended to include all of Upper Stillwater Lake, and the area used for bald eagle cumulative effects was also used for peregrine falcons in order to encompass other nearby high quality foraging habitat.

Affected Environment—Peregrine Falcon

Peregrine falcons appear throughout the western United States from Mexico to the arctic tundra. Very few pairs are documented in northwestern Montana where they are a summer

resident only. This species was probably never abundant in the Northern Rocky Mountains. Probably less than 300 eyries were used in any single nesting season.

Peregrines are found on NFS lands in Idaho, Montana, and North Dakota. What little data exists on peregrines in the Region indicates a slight declining trend in the West as a whole (Dobkin, 1992), however, the subspecies that breeds in our Region has shown an apparent improvement in overall population numbers. Between 1977 and 1991, peregrines increased in Idaho and Montana from approximately five active eyries to over 38 active known eyries.

The only recorded observation across the Tally Lake Ranger District was in June 1995, attempting to catch a duck at Duck Lake along the Stillwater River (about one mile northwest of the campground). The closest known nesting is about 50 miles to the southeast on the Flathead Reservation (east of Flathead Lake). There are very few pairs in northwestern Montana, a couple of pairs in Bitterroot and some in southern Idaho, and none around Lake Kootenai or the Idaho Panhandle area.

Potential foraging habitat is of high quality, considering the meadows and ponds and local abundance of songbirds, waterfowl, and upland birds. Nesting habitat is defined as lower elevation cliffs, primarily on westerly or southerly aspects, having significant sheer vertical rise. Tally Gorge is the only area of potential cliffy nesting habitat present in the area. A field survey was done in 1992 with no possible sign of peregrines detected.

Tally Lake Ranger District is not on a known travel flyway for peregrines, although they have been seen on the adjacent Fortine Ranger District during migrating season.

Environmental Consequences— Peregrine Falcon

Direct and Indirect Effects of the No Action Alternative

No actions are proposed with this alternative. Current and future recreational users of the site would continue to have the potential to disturb prey species. See also “Direct and Indirect Effects—Alternative A” sections for bald eagle and common loon, above. No change in mortality risk or direct or indirect effect to any peregrine falcon nesting habitat.

Direct and Indirect Effects of the Action Alternatives

See discussions above in the “Direct and Indirect Effects—Alternative A” sections of bald eagle and common loon for effects in common with these species. Mortality risk would not be affected by implementation of the proposed project. There would be no direct or indirect effect to potential peregrine falcon nesting habitat in Tally Gorge or any other area. There would be no increase in human use of areas within one-quarter mile of the potential nest cliff, during May to August or any other period.

Cumulative Effects

There would be no direct, indirect, or cumulative effect to peregrine falcon migratory movements across the project area. There would be no cumulative effect on mortality due to

project implementation. Based on the location and nature of peregrine use, the location and nature of the proposed project, and analysis of potential impacts, and Upper Stillwater Lake's potential to be foraging habitat, a "May Impact Individuals or Habitat" conclusion has been determined for the peregrine falcon.

Introduction—Gray Wolf and Grizzly Bear

The gray wolf (*Canis lupus*) and the grizzly bear (*Ursus arctos horribilis*) are federally listed as threatened species on the Flathead National Forest. They are considered together because they are both wide-ranging species that could potentially occur in the areas surrounding Upper Stillwater Lake and they could be affected in similar ways by proposed activities.

For wolves, adequate prey base and security from risk of mortality are the two major components that provide survival and recovery value (USFWS 1987, Witmer, et al. 1998). Wolves in the central Rocky Mountains appear to select landscapes with relatively lower elevation and flatter terrain. Habitat preferences appear to relate more to prey than to cover. The predominant prey of wolves in the northern Rockies is white-tailed deer, with lesser amounts of moose, elk, beaver, and smaller animals. Many biologists believe that the large white-tailed deer population in Western Montana has kept livestock kills by wolves low (Montana Wolf Management Advisory Council, 2003). Ungulate winter ranges, usually located in valley bottoms, are a critical factor for wolf survival. Within their home ranges in and near Glacier National Park, wolves concentrated their hunting in wintering areas of white-tailed deer (Kunkel and Pletscher 2001). Wolves commonly den in undisturbed sites, usually within 400 yards of water. A wolf pack will usually move up to six miles to a number of rendezvous sites, typically meadows, until the pups can travel with adults. Another important habitat component appears to be corridors for travel and dispersal, typically with vegetative cover and shallow snow. Although lesser-used roads and trails can facilitate wolf travel, frequently used roads can reduce wolf habitat security and increase the potential for accidental or illegal mortality (Thiel 1985). See Exhibit L-24 for more information.

When grizzly bears are away from denning habitat or other areas that provide sufficient food and security, the effects of recreational human use are mostly limited to displacement and do not typically result in changes in the availability of cover. Roads have facilitated easy human access into grizzly bear habitat. The grizzly bear study in the Swan Mountains of Montana (Mace and Waller 1997, Mace, et al. 1999) demonstrated relationships between roads and grizzly bear habitat use patterns. Bears tended to avoid roads, especially those open to motorized traffic. Bears are most vulnerable in areas with many roads and limited cover and escape habitat (Claar 1999). Fire and vegetation management can eliminate cover for security and thermal regulation and short-term changes in food availability (Witmer, et al. 1998). See Exhibit L-24 for more background information.

The gray wolf analysis area for direct and indirect effects is based on MDFWP winter range surrounding Upper Stillwater Lake. The area extends from about 0.75 miles southeast of the south end of Upper Stillwater Lake to about 3.5 miles northwest of the campground and is about 3 miles wide (Exhibit L-22). The northern portion of the LeBeau Stillwater HAU is included in the analysis area.

The analysis area for direct, indirect, and cumulative effects to grizzly bears is the Olney-Martin Creek Geographic Area (Exhibit L-28), which was also used to analyze cumulative effects to wolves.

The effects of the alternatives on these species were largely evaluated through the analysis for their major prey species, due to similarities of needs for security and cover. For additional information regarding current and historical use and condition of the campground and surrounding area, see the “Affected Environment” sections above for Bald eagle and Commonly Hunted Big Game.

Affected Environment—Gray Wolf and Grizzly Bear

In the contiguous 48 states, only five areas in mountainous regions of Washington, Idaho, Montana, and Wyoming currently contain populations of wolves. The Northwest Montana Wolf Recovery Area (USFWS 1987) includes the Upper Stillwater Lake area. Aside from the human element, wolf habitat quality has remained high throughout northwest Montana. Wolf population trend is upward, as the recolonizing population in northwestern Montana continues to expand. There are now several wolf packs in Montana, with some travel between Canada and the United States. Six of the eleven documented packs in and near the Flathead National Forest were documented as breeding in 2005 (USFWS, et al. 2005). The Lazy Creek and Murphy Lake Packs have documented use areas closest to the analysis area. For further pack information near the analysis area, refer to the Biological Assessment for this project (Exhibit L-24).

Gray wolf prey is well distributed and foraging habitat for ungulates is not limited in this area. The campground is in an area mapped as elk winter range through an interagency mapping effort, however the area is not designated as elk winter range by the Forest Plan. There has been no timber harvest since the late 1980s on Forest Service lands in the analysis area, but several recent sales have occurred on state and private land near Upper Stillwater Lake. There are also numerous natural openings in the area. Ungulate populations, especially white-tailed deer, appear to be at healthy numbers, particularly in the winter. No specific ungulate calving or fawning sites have been identified in the analysis area, as these appear to be dispersed. Moose, beaver, and several smaller prey species are also yearlong residents. For more information about potential wolf prey species, see sections in this chapter on “Commonly Hunted Big Game.”

The Upper Stillwater Campground is outside the Grizzly Bear Recovery Zone identified in the Grizzly Bear Recovery Plan (USFWS 1993, p. 59). The project area is within the adjacent area where grizzly bears are reasonably likely to occur, for which various management activities have described and analyzed in the 2005 Biological Opinion and incidental take statement on the Effects of the Flathead National Forest Plan on Grizzly Bears (USFWS 2005b).

The area surrounding the campground contains established human activities and developments including roads and trails, railroad tracks, US Highway 93, and numerous recreational opportunities. Open and closed roads and trails facilitate human access across the area. While grizzly bears may occur in the area, for reasons listed above and vegetation

characteristics, it is not considered highly suitable grizzly habitat. No known or suspected denning habitat occurs in the analysis area or elsewhere in the Salish Range (Tim Manley, pers. comm. 2005). Radio collared grizzly bears using the Salish Range den in the Whitefish Range. US Highway 93 and the railroad tracks are the primary barriers within the area that would preclude grizzly bear movements to adjacent populations or recovery areas.

For additional information regarding current and historical use and condition of the campground and surrounding area, see the “Affected Environment” sections above for Bald eagle and Commonly Hunted Big Game.

Environmental Consequences—Gray Wolf and Grizzly Bear

Direct and Indirect Effects of the Action Alternative

No actions are proposed with this alternative. Based on the nature of current recreational use and proximity to US Highway 93 and the railroad tracks, the mortality risk for grizzly bears would remain low-to-moderate and for wolves would remain moderate. See discussion regarding sanitation and habituation, below.

Direct and Indirect Effects of the No Action Alternatives

Key components of wolf habitat (USFWS 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.

Overall, there could be an effect on ungulate species’ movements or habitat use patterns during improvement operations included in the action alternatives and with any potential increase in human use of the campground and lake, but no change would be expected in ungulate population numbers or their availability to wolves as prey or as carrion.

The action alternatives would not alter a measurable amount of cover with potential to be used by large mammals such as wolves and grizzly bears. The new campsite loop would involve removal of brush and trees, but this would occur adjacent to existing campsites (with tables and fire rings), user created sites (with no improvements), and the existing access road (which would also be improved). No major forested connections would be severed.

The analysis area contains no known wolf den or rendezvous sites. The proposed campground improvements include no elements that would impact existing denning and rendezvous sites or prey base beyond those in the baseline condition. Maintaining roads on the landscape and human use of those roads could preclude prospective rearing sites for wolves, but rearing sites are not limited on the Forest. Thus, there would be no direct or indirect effects on wolves from disturbance to key habitat areas in or beyond the area where this project is proposed.

Wolf mortality has been a factor in the Northwest Montana Recovery area. Temporary displacement of individual animals during construction or due to increased campground use is not likely due to current home range distributions. If pack distributions shift, disturbance or

displacement of wolves would be possible. Construction would not disturb use of elk or deer winter range due to timing of activities. Grazing is allowed on portions of the Tally Lake Ranger District, including the Swaney Allotment which is about 20 miles southwest of the campground. Wolves have not been implicated in any livestock depredation. Based on the nature and duration of the proposed project, the mortality risk for wolves would not increase, but would remain moderate, due to US Highway 93 and the railroad tracks.

As stated earlier, the area is not considered highly suitable grizzly habitat. The action alternatives are expected to have no direct, indirect, or cumulative effects to grizzly bear denning habitat or to high quality food sources and is outside of the NCDE, but within the area where grizzly bears are “reasonably expected to occur.” Although unlikely because of low levels of grizzly bear use, disturbance or displacement of bears or prey would be possible. Other prey items such as beavers would not be affected.

Habituation of grizzly bears can occur at campgrounds if food sanitation precautions are not routinely taken by users, such as proper overnight storage of food and proper disposal of waste. No food-storage or sanitation order is currently in place in this area, although design criteria of this project would require all contractors and others implementing the project to comply. Measures would also be implemented in the campground, including educational signs and bear poles associated with all or most camp sites. Effects of recreation-related sanitation, such as that associated with this project were already described and analyzed in the 2005 Biological Opinion and incidental take statement on the Effects of the Flathead National Forest Plan on Grizzly Bears (USFWS 2005). This project would not impart effects of roads or road use in addition to those already covered in the biological opinion. Consultation on the effects of roads is complete and therefore the roads are considered as part of the environmental baseline for grizzly bears.

See the section on Direct, Indirect, and Cumulative Effects for the gray wolf, above, for more information about cover-related effects of the proposal.

The densities of open roads for this area are shown in Table 7. The Olney-Martin Geographic Unit is the only one across the Salish Range in which open road densities and other road conditions are not consistent with Forest Plan direction by Geographic Area. The unit would be made slightly less consistent with the unrestricted road density standard due to the 0.2 miles of road constructed in this project. Any road that is open seasonally or yearlong is considered as open, as these roads would be open during all or part of the bears’ non-denning season (April 1 to November 20). This definition is equivalent to “unrestricted road,” as used in the Forest Plan. As for the effects of sanitation mentioned above, the effects of roads and road use associated with this project were already described and analyzed in the 2005 Biological Opinion and incidental take statement on the Effects of the Flathead National Forest Plan on Grizzly Bears (USFWS 2005). For this project, this includes the creation of the spur road for the campsites (approximately 1000 feet long), boat ramp improvement work, and access road improvement work (approximately one-half mile). This project would not impart effects of roads or road use in addition to those already covered in the biological opinion. Consultation on the effects of roads is complete and therefore the roads are considered as part of the environmental baseline for grizzly bears.

Table 3-10. Road densities across USFS Lands in the Good and Martin Creek Area.

Travel Management Category	Road Miles	Road Density
Open in summer	189.8 miles	1.99 miles per square mile
Open fall through spring (includes hunting season)	147.8 miles	1.53 miles per square mile

Based on the nature and duration of the proposed project, the mortality risk for both wolves and grizzly bears would remain moderate for wolves (due to US Highway 93 and the railroad tracks) and low-to-moderate for grizzly bears.

Cumulative Effects

The cumulative effects analysis area for the grizzly bear and gray wolf is the Olney-Martin Creek Geographic Area, as mentioned above. As stated above, the area surrounding the campground contains established human activities and developments including roads and trails, railroad tracks, US Highway 93, and numerous recreational opportunities. Open and closed roads and trails facilitate human access across the area. Logging would likely continue on private land in and near the action area and DNRC sales are expected to occur in the general Dog Lake and Dog Mountain areas (within the action area) in the near future (Garrett Schairer, pers. comm. 2005). No additional Forest Service vegetative manipulation or timber sales are expected in the analysis area, although the Fortine Ranger District of the Kootenai National Forest is in the early stages of formulating a timber harvest/ecosystem management project just to the east of the analysis area. To the south of the analysis area, timber harvest and road construction would occur or continue in the Logan Creek, Valley Face, and Beaver Lake fuels reduction and ecosystem restoration projects.

Human access, available cover, and public attitudes largely determine mortality risk to wolves. A Forest Service livestock allotment occurs in and around Sheppard Creek more than twenty miles southwest of the analysis area and grazing occurs on private lands. There has been no indication of wolves preying on stock in this area. However, shooting and poisoning of coyotes and possibly other predators is known to occur to the east about 10 miles southeast of the campground. No predator control efforts towards wolves are ongoing or anticipated.

As mentioned earlier, effects to grizzlies of road creation activities and sanitation were among effects described and analyzed for grizzlies outside of the NCDE (See Exhibit L-31). There has been no indication of grizzlies preying on stock in this area, and no predator control efforts towards grizzlies are ongoing or anticipated. However, shooting and poisoning of coyotes and possibly other predators is known to occur to the east beyond the Logan Creek area. In 1992, Montana Department of Fish, Wildlife and Parks (MDFWP) relocated a grizzly that was trapped south of the analysis area after eating duck feed. In 2002, a sow and two cubs were seen digging up and eating dead cows about ten miles southeast of the campground. The Food Storage Order is not required in the Salish Mountains portion of the Tally Lake Ranger District, but its conditions are applied to Forest Service permittees. Human settlement occurs on many of the private lands, but no grizzly bear attractants were identified in the analysis area in a 2002 and 2003 front country survey of attractant sites (Exhibit L-19). Legal hunting of grizzlies ceased in 1999, however spring black bear hunting is expected to

continue. See the gray wolf discussion above for additional cumulative effects common to grizzly bears and wolves. Cumulative effects would not be expected to create a measurable difference in grizzly bear activity, habitat use patterns, or mortality risk.

Noxious weed control efforts are expected to occur across the forest. Also reasonably foreseeable are continued subdivision and development of private lands, as well as increased human pressure in the form of recreation, hunting, firewood gathering, etc.

No geographic or man-made barriers exist within the analysis area that would preclude wolf or grizzly bear movements to adjacent populations or recovery areas.

See above for additional cumulative effects that are in common with those for bald eagles. The Valley Face, Logan Creek, and Beaver Lake projects are just south of the cumulative effects area for wolves and grizzlies.

No alternatives of the proposed project are expected to have any direct, indirect, or cumulative effects to grizzly bear or wolf denning habitat or high quality food sources.

Introduction—Wolverine and Fisher

Wolverines (*Gulo gulo*) are a Forest Service Region One sensitive species. Remoteness and isolation from human impacts and a diverse prey base seem to be the most important habitat components (Witmer, et al. 1998). Adults are mostly solitary and range widely over a variety of habitats, with home ranges in Montana averaging 150 square miles (Exhibit L-7). The literature suggests wolverines readily avoid human activity (Ruggiero, et al. 1994). With few exceptions, wolverine dens described to date have been located in alpine, subalpine, taiga, or tundra habitat. Reports of dens in low elevation, densely forested habitats are rare (Magoun and Copeland 1998). Wolverines feed primarily on rodents and carrion, although they eat berries, insects, fish, birds, and eggs when available. Movements to lower elevations during winter may be to take advantage of ungulate mortalities on winter ranges (Butts 1992). Trapping and road kill mortality of wolverines is thought to be an additive to natural mortality (Krebs, et al. 2004). New genetic data (Tomasik and Cook 2005) suggest that gene flow between wolverines in North America has declined since historic times.

The fisher (*Martes pennanti*) is also a Forest Service Region One sensitive species. This large, weasel-like predator has a strong affinity for forested riparian habitats (Witmer, et al. 1998). Such areas are vulnerable to habitat fragmentation due to factors such as fire, timber harvest, and timber salvage (Powell and Zielinski 1994). Fishers avoid insular patches of forested habitat and may require forested riparian travelways between feeding and denning sites (Heinemeyer and Jones 1994, Witmer, et al. 1998; Exhibit Rs-7). They rarely stray far from streams or other wet sites. Areas of otherwise suitable habitat can be isolated when cover in travelways between home ranges is removed (Fisher and Wilkinson 2005). See Exhibits L-12 for more information about this species.

Potential disturbance of wolverines and fishers primarily includes displacement of incidental individuals traveling through the area. See Exhibits L-22 and L-24 for more background information.

Affected Environment—Wolverine and Fisher

The campground and the Upper Stillwater Lake analysis area do not contain suitable wolverine denning habitat (large, isolated tracts of land supporting a diverse prey base). Possible wolverines were seen along Brush Creek divide in August 1996 (about 15 miles to the southwest). This may have been a young, dispersing individual. The location of one harvested in 1990 was given as “Good Creek.” Another in 1978 was reported as harvested at “Tally Lake,” which could be anywhere on the Tally Lake Ranger District. There have been confirmed sightings over the past five years in Whitefish Divide, five miles to the northeast across the Stillwater Valley, and in the drainages of the North and Middle Forks of the Flathead River in Glacier National Park, upper Grave Creek, and Ten Lakes area. These are the closest suspected denning habitats, all of which have a considerable amount of ungulate winter range nearby.

There have been several attempts to reintroduce fishers in Montana. In 1995, an unconfirmed fisher was reported near Pilot Knob, south of the analysis area. This species has also been reported three times in the Griffin Creek drainage, southwest of the analysis area. Forest Service files also contain two possible reports of fisher tracks in the Miller Creek drainage 5 miles south of the analysis area, although these could have been the tracks of a large male marten. Potential habitat is assumed to occur within moist forest PVGs, and “near” riparian areas.

For additional information regarding current and historical use and condition of the campground and surrounding area, see the “Affected Environment” sections above for Bald eagle and Commonly Hunted Big Game.

Environmental Consequences—Wolverine and Fisher

Direct and Indirect Effects of the No Action Alternative

No actions are proposed with this alternative. Based on the nature of current recreational use and proximity to US Highway 93 and the railroad tracks, the mortality risk for both wolverines and fishers would remain low-to-moderate.

Direct and Indirect Effects of the Action Alternatives

As stated in earlier sections, the campground currently receives high recreational use, and is situated near US Highway 93 and the railroad tracks (See the sections of this chapter on “Commonly Hunted Big Game,” “Gray Wolf and Grizzly Bear,” and “Bald Eagle.” These alternatives could result in displacement of individuals for both species. Considering the large scale of wolverine dispersal, these effects would not be measurable, nor would

availability of carrion and other food sources be affected. For more information on effects relevant to the wolverine and fisher, including temporary road construction, see the sections of this chapter referenced above.

Cumulative Effects

The wolverine is vulnerable where it occurs across the Columbia River Basin, due to its low population densities and dependence on remote habitat (Witmer, et al. 1998). Past timber harvests altered habitat characteristics by reducing the amount of small mammal habitat (down logs/snags) and construction of roads, which allowed relatively easy access for trapping opportunities. These past management activities have also provided early successional foraging habitats for big game, on which wolverine scavenge, and easier access for hunters. Prior to fire suppression and timber management, elk and deer populations were dependent upon natural disturbances to create openings that provided the early successional growth favored by foraging ungulates. Human developments such as hiking trails and road development within the area probably had more far-reaching effects by increasing human access into once remote areas.

The fisher's status in the Western United States has been thought to be "precarious and declining" (Witmer, et al. 1998), apparently due to habitat alteration and overexploitation. The lack of fisher trapping records from 1920 to 1960 indicates this species may have been extirpated from Montana at one time. Reintroductions occurred in the late 1950s, and fishers have since been documented in much of the Flathead National Forest. Hillis and Lockman (2003) mapped fisher habitat in Forest Service Region One, concluding that fisher habitat occurs at historically normal levels at both the Flathead National Forest and Region One scales.

Some suitable denning, feeding, and travel habitat has been harvested across national forest, corporate, and private lands. Even during the 1970s and 1980s, when timber harvest was intensive, riparian zones were generally avoided, which could explain why habitat loss and fragmentation were not greater (Hillis and Lockman 2003). Logging would likely continue on private land. Across the analysis area, open roads facilitate access for trappers and firewood cutters, potentially decreasing fisher populations and the downed logs important for fisher and their prey species (Exhibit L-4 and L-15).

The analysis area is part of MDFWP's Region 1, which has an annual quota of one fisher harvested through trapping. See above for additional cumulative effects that are in common with those for gray wolves and grizzly bears. Exhibit L-11 is an assessment of the wolverine across USFS Region One.

Introduction—Boreal Toad

The boreal toad (*Bufo boreas boreas*) is a Forest Service Region One sensitive species. Boreal (western) toads breed in lakes, ponds, road ditches, and slow streams, with a preference for shallow areas and mud bottoms. Adult toads are largely terrestrial in a wide variety of habitats, including forests, up to at least four miles from water (Werner and Reichel

1994). This species is widespread across western Montana but may be experiencing population declines (Maxell, et al. 2003).

Recreational facilities can result in loss of key breeding, foraging, and overwintering habitats for herpetofauna, and mortality risk for populations in or near recreational facilities may increase due to handling and killing by humans (Maxell and Hockit 1999). Recreation may also impact herpetofauna through light disturbance and by subsidizing human food sources for native predators (Maxell and Hockit 1999). Artificial light sources may disrupt both nocturnal breeding and feeding for amphibians (Maxell and Hockit 1999).

All of the analysis area is considered to be habitat for the boreal toad. This includes upland areas and riparian habitat (nearly level riparian habitats in flat valley bottoms and with relatively fine substrates). For more information about effects analysis methods, conclusions and cumulative effects, see the “Water Resources” section of this chapter.

Affected Environment—Boreal Toad

Historical data on the western toad indicates it was widely distributed and very common in Montana and other western states, but surveys in the late 1990s indicate that they are absent from many historic locations and that they now occupy less than ten percent of suitable habitat (Maxell 2000). The nearby Griffin Creek drainage, adjacent to the west, appears to be a hotbed of toad reproductive activity. This species is likely to be much more common than local observation records suggest as it is a recent addition to the Sensitive Species list and has not been generally recorded. The campground and access road are close enough to potential breeding ponds to be potential upland habitat for boreal toads.

For additional information regarding current and historical use and condition of the campground and surrounding area, see the “Affected Environment” sections above for Bald eagle and Commonly Hunted Big Game.

Environmental Consequences—Boreal Toad

Direct and Indirect Effects of the No Action Alternative

No actions are proposed with this alternative. As mentioned earlier, mortality risk for populations in or near recreational facilities may increase due to handling and killing by humans, human food sources that can subsidize native predators, and artificial light sources may disrupt nocturnal feeding and breeding (Maxell and Hockit 1999).

Direct and Indirect Effects of the Action Alternatives

Risks and disturbances described above for Alternative A could increase with additional campers, especially with Alternative B, which includes trails from each campsite to the shoreline. This may be somewhat reduced, however, by revegetation efforts along the shoreline in both alternatives, but especially in Alternative C, which does not include trails

from the campsites to the shoreline. Egg masses and tadpoles in shallow areas along the shore could be impacted by users along the shoreline with increased general use of the campground. This provides a small opportunity for squashing adult toads via motorized vehicles and equipment.

Cumulative Effects

Past timber harvest, road construction, and road maintenance have likely affected boreal toad habitat in this area as well as across the Flathead National Forest. Current recreational use likely imposes the increased risks and disturbances discussed above for Alternative A and in the “Affected Environment” section. See above section on cumulative affects for the Common Loon and Bald Eagle for further details.

Regulatory Framework and Consistency

National Forest Management Direction is to “provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives,” 16 USC 1604(g)(3)(B). To implement NFMA, the Forest Service’s regulations, implemented on January 5, 2005, state that “the overall goal of the ecological element of sustainability is to provide a framework to contribute to sustaining native ecological systems by providing ecological conditions to support diversity of native plant and animal species in the plan area.” 36 CFR 219.10(b). A goal under the Forest Plan, as directed in Amendment 21 (USDA Forest Service 1999), is to “ensure that Forest Service actions do not contribute to the loss of viability of native species.” All alternatives would comply with this direction. See the analysis of forest-level viability of threatened and endangered wildlife species for Flathead National Forest’s Forest Plan Amendment 21 and Exhibit L-7.

Threatened and Endangered Wildlife Species

Threatened or endangered status affords a species and its habitat special protection from adverse effects resulting from federally authorized or funded projects. It is the responsibility of the Forest Service to design activities that contribute to the recovery of listed species in accordance with recovery plans developed as directed by the Endangered Species Act (ESA) (50 CFR part 402). Forest Plan Amendment 21 has a goal to “provide sufficient habitat to promote the recovery of threatened and endangered species and conserve the ecosystems upon which they depend.” Section 9 of the Endangered Species Act of 1973, as amended, requires threatened and endangered species be protected from “harm” and “harassment” wherever they occur, regardless of recovery boundaries.

The Proposed Action and its alternatives comply with Section 9, ESA of 1973 as amended, Flathead Forest Plan as amended, and all finalized recovery documents and recommendations listed below. A Biological Assessment for Threatened and Endangered Wildlife Species would be prepared for the Preferred Alternative (Exhibit L-24) prior to the decision. U.S. Fish and Wildlife Service consultation is in Exhibit L-18; concurrence or Biological Opinion will be in Exhibit L-23. If any active nesting, denning, or rendezvous sites for threatened or endangered wildlife species are discovered in any proposed harvest or fuel reduction unit,

area of road construction or similar activity, activities would be modified, if needed, to protect habitat conditions and maintain reproductive efforts.

Gray Wolf – The Gray Wolf in Montana is classified as endangered and is protected under the Endangered Species Act. Strategies to protect and recover populations in Montana are outlined in the Northern Rocky Mountain Wolf Recovery Plan (USFWS 1987; adopted as Forest Plan Appendix PP). The Upper Stillwater Lake Campground is in the Northwestern Montana Wolf Recovery Area identified in the Northern Rocky Mountain Wolf Recovery Plan (USFWS 1987). Management direction applicable to the project area from the USFWS includes maintaining an adequate prey base for wolves and minimizing mortality risk for wolves without unnecessary land use restrictions. Gray wolves are also legally protected under the Lacey Act (1901). Forest Plan direction includes II 34-38; Amendments 8, 11, and 12; and Appendix PP. Amendment 21 includes standards that are listed below:

- a. Wolf habitat needed to meet recovery goals includes available prey (especially elk, deer, and moose) and security.
- b. In general, logging activities should not be conducted in or near known or highly suspected dens and rendezvous sites, ungulate calving/fawning areas, or in “important winter ranges” between December 1 and April 15 each year.

Grizzly Bear – The grizzly bear is classified as Threatened in Montana and is protected under the Endangered Species Act. The analysis area is outside the recovery zone known as the Northern Continental Divide Grizzly Bear Ecosystem (USFWS Grizzly Bear Recovery Plan 1993). It is listed in the Forest Plan as “unoccupied grizzly bear habitat,” based on habitat suitability combined with lack of consistent grizzly observations. However, grizzly bears are reasonably expected to occur within part of the Upper Stillwater Lake area (Exhibit L-29). Forest Plan direction includes pages II-24 through II-33 and Amendments 8, 9, and 11. Interagency Grizzly Bear Guidelines (1986) were adopted as Forest Plan Appendix OO.

Lynx – A Canada Lynx Conservation Assessment and Strategy has been finalized (Lynx Biology Team 2000; Exhibit L-27). In February 2000, the Forest Service and the Fish and Wildlife Service entered into the Canada Lynx Conservation Agreement, which was re-signed in May 2005. The contiguous United States population segment of the lynx, including Montana, became a threatened species on March 24, 2000. In October 2000, the U.S. Fish and Wildlife Service issued a biological opinion on the effects of National Forest Land and Resource Management Plans and Bureau of Land Management Land Use Plans on Canada lynx in the contiguous United States. The Northern Rockies Lynx Management Direction Final Environmental Impact Statement and Record of Decision (USDA Forest Service 2007) was signed on March 23, 2007. For more information about these documents, see Exhibit L-27.

Threatened Wildlife Species Determination Statements:

A. Gray Wolf – Based upon the location and nature of the proposed project, and the analysis of potential impacts and cumulative effects, a determination of “May affect -- not likely to adversely affect” has been determined for gray wolf for all alternatives.

B. Grizzly Bear – Based upon the location and nature of the proposed project, and the analysis of potential impacts and cumulative effects, a determination of “May affect -- not likely to adversely affect” has been made for grizzly bear for all alternatives.

C. Canada Lynx – Based upon the location and nature of the proposed project and the analysis of potential impacts and cumulative effects, a determination of “May affect -- not likely to adversely affect” has been made for the Canada lynx for all alternatives.

Sensitive Wildlife Species

Federal laws and direction applicable to sensitive species include the National Forest Management Act (NFMA 1976) and Forest Service Manual 2670. Amendment 21 to the Forest Plan has standards to conduct analyses to review programs and activities to determine their potential effect on sensitive species and to prepare a biological evaluation. It also states “adverse impacts to sensitive species or their habitats should be avoided. If impacts cannot be avoided, the significance of potential adverse effects on the population or its habitat within the area of concern and on the species as a whole would be analyzed. Project decisions would not result in loss of species viability or create significant trends towards federal listing.”

If any active breeding, nesting, or denning sites for sensitive wildlife species are discovered in the project area, activities would be modified, if needed, to protect habitat conditions and maintain reproductive efforts.

Sensitive Wildlife Species Determination Statements

In accordance with FSM 2673.42, determinations have been made as to the degree of impact the proposed activities may have on sensitive species (Table 3-11 and Exhibit L-10). Along with Chapter 1, Chapter 2, and the sub-section above on each species, these determination statements meet the requirements of the Biological Evaluation for Sensitive Wildlife Species. These determination statements are for the segment of the population using the analysis area. Exhibit L-7 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, as well as the project design and location.

Table 3-11. Biological Evaluation Determinations for Sensitive Wildlife Species (Exhibit Rs-3).

Sensitive Wildlife Species	Alternative		
	A	B	C
Bald Eagle *	MIIH	MIIH	MIIH
Black-backed woodpecker	NI	NI	NI
Boreal toad	MIIH	MIIH	MIIH
Common loon	MIIH	MIIH	MIIH
Fisher	MIIH	MIIH	MIIH
Flammulated owl	NI	NI	NI
Harlequin duck	MIIH	MIIH	MIIH
Northern bog lemming	NI	NI	NI
Northern goshawk	NI	NI	NI
Northern leopard frog	NI	NI	NI
Peregrine falcon	MIIH	MIIH	MIIH
Western big-eared bat	NI	NI	NI
Wolverine	MIIH	MIIH	MIIH

* = The bald eagle was delisted effective August 8, 2007. It was analyzed as a threatened species for this project, for which it was given an equivalent determination of “May Affect—Not Likely to Adversely Affect.” See Exhibit L-20 for more information.

BI = “Beneficial Impact”; 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.”

Heritage Resources

Introduction

Heritage resources involve the conservation of archeological, cultural, architectural, and historic sites and artifacts. This section describes the existing heritage resources of the Upper Stillwater Lake Campground area and the potential effects the no action and action alternatives would have on these resources. The effects analysis focuses on those areas where potentially ground-disturbing activities, such as campsite construction, are proposed.

Information was gathered using a multi-phase approach to ensure cultural resource compliance [36 CFR 800.3(c)] for the Upper Stillwater Lake Campground analysis. This was possible because of the site-specific nature of cultural resources. The first phase was a reconnaissance of the inventory of known cultural resources and a sampling of areas with a high probability for the occurrence of additional cultural resources. A pre-survey files search for information on previously recorded heritage sites in the proposed project area was also conducted. This phase included initial consultation with the Confederated Salish and Kootenai Tribes to identify any concerns they may have regarding traditional cultural properties, traditional use plants, and areas of spiritual importance in the analysis area.

The second phase required a thorough survey of the site so as to locate, record, and evaluate the historical significance of any identified heritage resources. This survey was conducted by the FNF archaeologist in 2002.

Analysis Area

The analysis area for heritage resources includes the immediate campground area and adjacent lakeshore, consisting of approximately 2.5 acres.

Affected Environment

Prior to the two-phase inventory, the Forest's Heritage Resource staff conducted an in-house files search for information on known, previously recorded heritage resources in the Upper Stillwater Lake Campground analysis area. General Land Office plat maps, BLM Land Status Records, historic forest maps, and the forest's cumulative site and survey atlas were all referenced for site information. No previously recorded cultural sites were identified during this phase of the search.

The field surveys conducted in the fall of 2002 likewise did not uncover any evidence that the area of the campground includes culturally significant sites or artifacts. The field inventory strategy involves pedestrian reconnaissance in areas proposed for future timber harvest or other ground-disturbing activity. Regardless of the degree or type of harvesting prescription, heritage resource personnel inventory the affected areas based upon topography with "high probability areas" (ridge tops, peaks, stream terraces) receiving 100 percent coverage,

"medium probability areas" (slopes less than 30 percent, rock outcrops, erosional surfaces) receiving 40 percent coverage, and "low probability areas" (slopes in excess of 30 percent, north-facing slopes, heavily timbered slopes with abundant deadfall and understory) receiving 10 percent coverage.

Any heritage resource sites discovered during the two-part inventory are recorded and their National Register eligibility status evaluated in consultation with the Montana State Historic Preservation Office (MtSHPO).

Environmental Consequences

Direct and Indirect Effects of No Action and Action Alternatives

Since there are no culturally significant sites located in the analysis area for the Upper Stillwater Lake Campground improvement project, there would be no effect to heritage resources from implementation of the project or selecting the No Action alternative. The campground renovation contract would contain language that would require protection of any previously unknown sites encountered during implementation of renovation activities.

Regulatory Framework and Consistency

The USDA Forest Service is mandated to comply with the National Historic Preservation Act of 1966 (NHPA) [Public Law 89-665]. "Section 106 of the NHPA requires that Federal agencies with direct or indirect jurisdiction over Federal, Federally assisted, or Federally licensed undertakings afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity for comment on such undertakings that affect properties included in or eligible for inclusion in the National Register of Historic Places (NRHP) prior to the agency's approval of any such undertaking" [36 CFR 800.1]. Historic properties are identified by a cultural resource inventory and are determined as either eligible or not eligible for the National Register. Eligibility is reviewed, and concurrence given, by Montana State Historic Preservation Office. Sites that are determined eligible are then protected in-place or adverse impacts must be mitigated. This process takes place prior to any decisions relative to the project.

The Flathead National Forest operates under the terms of the R1 Programmatic Agreement (PA) between Region One of the Forest Service, the MtSHPO, and the Advisory Council for Historic Preservation. The Programmatic Agreement provides a streamlined process for complying with section 106 of the National Historic Preservation Act as amended (NHPA). The efficiencies provided by the PA should allow more time for the Forest Heritage program to fulfill the Forest's responsibilities under section 110 of NHPA.

CHAPTER 4 - LIST OF PREPARERS; AGENCIES, ORGANIZATIONS, AND PEOPLE CONSULTED; and RESPONSE TO COMMENTS

LIST OF PREPARERS and CONTRIBUTORS

Name	Title	Area of Contribution
Becky Smith-Powell	Resource Forester	Project Leadership & Recreation
Beth Gardner	Fisheries Biologist	Fisheries
Amy Jacobs	Wildlife Biologist	Wildlife
Angela Deanzer	Wildlife Biologist	Wildlife
Shawn Boelman	Engineer	Transportation
Rod Schmidt	Roads Manager	Transportation
Linh Hoang	Botanist	Threatened & Sensitive Plants
Liz Hill	Hydrologist	Water Resources
Betty Kuropat	Silviculturist	Noxious & Invasive Weeds
Tim Light	Archeologist	Heritage Resources
Bill Basko	Soil Scientist	Soils
Bryan Donner	Planning Team Leader	Ecosystem Coordination
Tami MacKenzie	Writer-Editor	Writing & Editing
Lisa Timchak	District Ranger	Project Oversight

AGENCIES, ORGANIZATIONS, and PEOPLE CONSULTED

The Forest Service consulted the following groups, individuals, Federal, state and local agencies, and tribes during the development of this environmental assessment:

FEDERAL, STATE, AND LOCAL AGENCIES:

United States Fish and Wildlife Service
 Montana Department of Natural Resource and Conservation
 Montana Department of Fish, Wildlife, and Parks

BUSINESSES:

Daily Inter Lake

TRIBES:

Confederated Salish-Kootenai Tribes

GROUPS:

Flathead Economic Policy Center
American Whitewater
Pacific Legal Foundation

Alliance for the Wild Rockies
Friends of the Wild Swan

INDIVIDUALS:

Jim & Marthella Adams
Dan Alt
Jon Alt
Frances Anderson
Mary Baker Johnson
Dewayne Beck
Jerry & Delores Benbrook
Thad Briggs
Bryce Bring
David & Rita Brown
Pam Brown
Stanley Burns
Bruce & Tarey Chelling
Jeff & Tracy Christian
Nathan & Patti Conkle
Dennis Conkle
Cynthia Eve
Don Fields
Constance Fletcher
April Fredrickson
Keith Fredrickson
Dan Goff
Dan Grandkoski
Gene Grandkoski
Rachel Grant
Alan & Sallie Gratch
Rocky Gress
Ron Guckaby
Mike Guckengerg
Gary Hall
Lisa Hill
Ron Holden
Ray & Mary Johnson
Greg & Valerie Johnson
Joseph Kross
Ben & Angela Laroque

Ted & Brenda Larsen
Tom & Erika Larsen Jr.
Ted Larson
Dave Larson
Bob Lawson
Michelle McDowell
James Mielke
Jeff Mielke
Mark Mystic
John & Mary Lou Musser
John Naglen
Roxann Naglen
Sandy Ott
Edwin Payne
Ray Peterson
Jeff Portman
Tina Potter
Roy & Sheila Quimby
Bill & Jan Richardson
Barb Roberts
Larry Ryerson
Larry & Alice Ryerson
Al Schwegel
Ray Schwegel
Jane Sheet
Jeff Slesar
Gary & Mary Sloan
Ken Stacy
June Stenger
J.B. Stone
Carl & Joan Storkson
Charles Storkson
John Street
Emma Suarez
Mitchell Tanner
Nicole Teeter

Jeff Ulsamer
 Fritz & Jeanette Umscheid
 Joe Warner
 Brian Watson
 Gary Watson
 Dan Weber

Norm & Tara Weller
 Linda Winnie
 Allen Wood
 Scott & Kathy Yerian
 Kane Youngquist
 Larry Zursluh

RESPONSE TO COMMENTS on the PROPOSED ACTION

Fisheries

Project File Number	Comment and Response
D-1, D-20	Improve fishing access at Upper Stillwater. Response: The purpose and need of the project is not intended to improve access but rather maintain the existing access. Any increase of fishing and boating pressure on the lake could have undesirable consequences to wildlife species.
D-1	Any plans to improve access for small fishing boats at existing launch? Suggested gravel and grading, not concrete. Response: Both action alternatives involve re-grading and repairing the gravel boat ramp. No concrete pads will be installed.
D-4	Concerned about the inability of older folks to launch their fishing boats at the existing facilities. Response: Improvements to the boat launch by chipping out the protruding rocks, and hauling in washed gravel will improve the site for all users.
D-15	Lake levels do not always support access to the main lake through the narrows. Spring run-off flushes silt and debris into the lake and creates more problems for boaters and fishermen when trying to get to the main body of the lake. Increased boat traffic will only aggravate this problem. Response: The concern about seasonal fluctuation in flow and debris is out of the scope of the analysis.

Vegetation

Project File Number	Comment and Response
D-15	There are 4 species of concern in this area for sensitive plants. They include: <i>Botrychium pedunculatum</i> (Stalked Moonwort), <i>Dryopteris cristata</i> (Buckler Fern), <i>Carex livida</i> (Pale Sedge), and <i>Scheuchzeria palustris</i> (Pod Grass). Response: The Forest Botanist has written a Biological Evaluation and Biological Assessment for plants of concern (Project file J-1). The determination was there would be no effect.

Recreation

Project File Number	Comment and Response
D-11	Public use of recreational facilities is increasing and will continue to increase in the future. Because of this recreation pressure, it is critical that existing facilities are maintained, upgraded and expanded to meet this need. Response: The Selected Alternative will improve recreations from the existing condition. Long term maintenance is dependant on budget allocations.
D-11	New recreation sites should be developed to meet expanded future use. Response: The Selected Alternative will improve recreations from the existing condition.
D-11	Stoltze has experienced a dramatic increase in recreational use on their lands in the last 5 years as the FS has closed more roads and restricted use on these public lands. Response: Closing roads or restricting use on public lands is outside of the scope of this project.
D-11	Supports this project to help meet increased recreational use. Response: No issue
D-11	Supports rehabilitation of Campground. Response: No issue
D-10, D-20	Wants campground left as it is, concerned about overcrowded conditions. Response: The No Action Alternative does not meet the Purpose and Need: to restore resource, address safety issues, or meet accessibility standard for public facilities.
D-21	Make parking area larger for fishing access and larger camp units. Response: This concern is addressed in the Selected Alternative
D-21	Move host site closer to parking area. Response: This concern is address in the Selected Alternative.
D-7	Any new facilities should be user friendly in regards to elderly and handicapped access. Response: All new facilities are planned to be accessible.
D-2	Asks for more Campsites Response: The alternatives address the capacity of the site and the need to minimize resource damage. See the Recreation specialist report, Exhibit H-1 for details.
D-17	Support user fees as long as they are not for locals Response: Fees are not planned at this time.
D-20	Do not want to pay for facilities Response: Fees are not planned at this time.
D-21	Construct a foot bridge over the river and install more campsites Response: This proposal was considered but not included in the Selected Alternative.
D-12	Prefers no Host Response: The Selected alternative does not include a designated site for a campground host but volunteers may be used to maintain site.
D-1	With the aging population accessibility is becoming a larger issue Response: All action alternatives address accessibility.
D-9	Many people think this area is a rifle range and come out and shoot their guns causes concern for people riding or walking in the area. Response: Shooting firearms is not permitted in developed sites. Forest law enforcement should be informed if this occurs, with any pertinent informant.

Social/Economics

Project File Number	Comment and Response
D-6	Does not want to pay to maintain a road for others to go to a lake. Response: Comment noted
D-14	This area has already seen its share of vandalism. With more traffic more vandalism may occur. Response: Unfortunately all recreation sites have this type of activity. FS Law Enforcement is actively working on solutions.
D-7, D-4b, D12	There are concerns from local residents about increased traffic on the road leading to the recreation site. Response. There will probably be an increase in traffic as the population grows and there is an increased demand for hiking trails and camping. It is unlikely that this project will add to this increase.
D-21	Concerned about additional people leading to additional crime Response: The increase of crime is outside of the scope of this project. Criminal activity should be reported to the local law enforcement.
D-17	We appreciate the quiet area and like to take our children there to see what Montana was like back then. Specifically, the saw mill and waving to the engineers when the train goes by. Response: The selected alternative is not anticipated affect your community.
D-5, D-22	Do not support project. Response: Comment noted
D-9, D-14	No trespassing signs have been torn down on private property and people have crossed private property to get to lake. Response: This is outside the scope of the analysis.
D-12	The residents along the access road disagree with any improvements, without road improvements. Response: The Forest is only responsible for activities on Forest Lands. The road from Highway 93 to the Forest boundary is County jurisdiction.

Transportation

Project File Number	Comment and Response
D-17	Suggests other funding (RAC program) be used to repair the road surface from the highway to the Stillwater Bridge, or apply dust abatement. Response: See item 9 and its response.
D-14, D-18, D-19	The railroad crossing is on a bind curve. There needs to be better signing. Response: The BNSF railroad has be made aware of the concern
D-19	Dust is a problem on County road. Response: Suggest the residents for a road user association an approach Flathead County about concerns.
D-6	Concern about speed and traffic on road. Response: see items 6 & 9
D-14, D-18, D-19	Exits off of hwy 93 create hazardous situation due to limited visibility Response: This is outside the scope of the project.
D-12	Suggest additional signage... Response: This is outside the scope of the project. The residents should work with Flathead County about signing along the county segment.
D-9	Concern about children's safety on road and bridge. Response: This is outside the scope of the project.
D-2,D-9,D-12	Concern about children's safety due to dust. Response: This is outside the scope of the project.
D-9, D-12,	Concern about level of maintenance of road through neighborhood.

Project File Number	Comment and Response
D-13,D-14	Response: Suggest the residents for a road user association an approach Flathead County about concerns.
D-9	More traffic since campground sign was reinstalled on Hwy 93 and condition of road through neighborhood. Response: Suggest the residents for a road user association an approach Flathead County about concerns.
D-9	Concerned about existing heavy traffic and problems with littering. Response: See response above (9, 19).
D-12	Would like maintenance and signs on road. Response: See response above (9, 19).

Wildlife

Project File Number	Comment and Response
D-10	Money coming from Missoula should be used to get rid of the Endangered Species Act and towards logging of the Douglas-Fir disaster Response: Outside scope of decision
D-10	There are Bald Eagles and owls in area Response: Concerns about TES and other wildlife are fully analyzed in the Wildlife specialist report in Exhibit L.
D-15	There are three species of concern in this area: Lynx, Grizzly Bear, and Common Loons Response: These are discussed in the Biological Assessment and other wildlife analysis in project file L.

LITERATURE CITED

- Butts, T. W. 1992. Lynx (*Felis lynx*) biology and management. USDA Forest Service Northern Region, Missoula, Montana. Literature review and annotated bibliography. 77 pp. + bibliography.
- Canfield, J.E., L.J. Lyon, J.M. Hillis, and M.J. Thompson. 1999. Ungulates. Pages 6.1 to 6.25 in Joslin, G., and H. Youmans Effects of recreation on Rocky Mountain wildlife: a review for Montana. Montana Chapter of the Wildlife Society.
- Claar, J.J. 1999. Carnivores. Pp. 7.1-7.63. In Effects of recreation on Rocky Mountain wildlife: A review for Montana. Coordinated by Joslin, G. and H. Youmans. Committee on Effects of Recreation on Wildlife, Montana Chapter of the Wildlife Society. 307 pp.
- Dobkin, D. S., R.D. Gettinger, M.G. Gerdes. 1995. Springtime movements, roost use, and foraging activity of Townsends' big-eared bat (*Plecotus townsendii*) in central Oregon. Great Basin Naturalist. 55(4):315-321.
- Evers, D.C. 2004. Status assessment and conservation plan for the Common Loon (*Gavia immer*) in North America. U.S. Fish and Wildlife Service, Hadley, MA.
- Fisher, Jason T., and Lisa Wilkinson. 2005. The response of mammals to forest fire and timber harvest in the North American boreal forest. Mammal Review 35:1, 51-81
- Heinemeyer, K. S. and J. L. Jones. 1994. Fisher biology and management in the western United States: A literature review and adaptive management strategy (Version 1.2). Prepared by USDA Forest Service Northern Region and Interagency Forest Carnivore Working Group.
- Hamann, Betsy, Heather Johnston, John Gobielle, Mike Hillis, Lynn Kelly, and Pat McClelland. 1999. Birds. Pages 3.6 to 3.8 in Joslin, G., and H. Youmans. Effects of recreation on Rocky Mountain wildlife: a review for Montana. Montana Chapter of the Wildlife Society.
- Hillis, J. Michael, Vita Wright, and Amy Jacobs. 2002. USDA Forest Service Region One Canada Lynx Assessment. Missoula, MT 59812. 20p.
- Hillis, J. Michael, and Dave Lockman. 2003. An assessment of American marten habitat in Region One. USDA, Forest Service. Northern Rockies Region. Missoula, MT 59812. 8p.
- Jacobs and Kuennen, in prep. Stillwater Bald Eagle Nesting Territory Site-specific Guidelines. Tally Lake Ranger District, Flathead national Forest.
- Joslin, G. and H. Youmans. 1999. Effects of recreation on Rocky mountain wildlife: a review for Montana. Committee on Effects of Recreation on Wildlife, Montana Chapter of the Wildlife Society. 307 pp.
- Koehler, G. M. 1990. Demographic and habitat characteristics of lynx and snowshoe hares in north-central Washington. Canadian Journal of Zoology. 68: 845-851.
- Koehler, G. M. and K. B. Aubrey. 1994. Lynx. In The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States. USDA Forest Service, Fort Collins, CO, Gen. Tech. Report RM-254.
- Krebs, John, Eric Lofroth, Jeffrey Copeland, Vivian Banci, Dorothy Cooley, Howard Golden, Audrey Magoun, Robert Mulders, and Brad Shults. 2004. Synthesis of survival rates and causes of mortality in North American wolverines. J. Wildl. Manage. 68:493-502.

- Kunkel, Kyran and Daniel H. Pletscher. 2001. Winter hunting patterns of wolves in and near Glacier National Park, Montana. *Journal of Wildlife Management* 65:520-530.
- Losensky, J.B. 1987. An Evaluation of Noxious Weeds on the Lolo, Bitterroot, and Flathead National Forests with Recommendations for Implementing a Weed Control Program. Internal Report. Missoula, Montana.
- Lynx Biology Team. 2000. Canada Lynx Conservation Assessment and Strategy. U.S. Bureau of Land Management, U.S. Forest Service, U.S. National Park Service, and U.S. Fish and Wildlife Service. January 2000.
- Mace, R.D., J.S. Waller, T.L. Manley, K. Ake, W.T. Wittinger. 1999. Landscape evaluation of grizzly bear habitat in Western Montana. *Conservation Biology*. 13(2):367-377.
- Mace, R. D., and J. S. Waller. 1997. Final Report: Grizzly bear ecology in the Swan Mountains, Montana. Montana Fish, Wildlife and Parks. Helena, MT. Pages 64-73.
- Magoun, Audrey J., and Jeffrey P. Copeland. 1998. Characteristics of wolverine reproductive den sites. *Journal of Wildlife Management* 62:1313-1320.
- Maxell, B.A. 2000. Management of Montana's Amphibians: A review of factors that may present a risk to population viability and accounts on the identification, distribution, taxonomy, habitat use, natural history and the status and conservation of individual species. Report to USDA Forest Service Region 1, Order Number 43-0343-0-0224. University of Montana, Missoula, MT. 161 pp.
- Maxell, B.A., K. Werner, P. Hendricks, and D. Flath. 2003. Herpetology in Montana. Northwest Fauna Number 5. Society for Northwestern Vertebrate Biology. Olympia, WA.
- Maxell and Hockit, 1999. Amphibians and Reptiles. Pages 2.1-2.29. *In*: G. Joslin and H. Youmans. Effects of recreation on Rocky Mountain wildlife: a review for Montana. Montana Chapter of the Wildlife Society.
- Montana Bald Eagle Working Group. 1994. Habitat Management Guide For Bald Eagles In Northwestern Montana. USDA Forest Service, Missoula, MT. 29 pages.
- Montana Bull Trout Scientific Group. 1995. Flathead River Drainage Bull Trout Status Report (including Flathead Lake, the North and Middle Forks of the Flathead River, and the Stillwater and Whitefish Rivers). Montana Bull Trout Restoration Team, Helena, Montana.
- Montana Department of Fish, Wildlife, and Parks. 1992. Statewide Elk Plan for Montana. Helena, MT. 170 pages.
- Montana Department of Fish, Wildlife, and Parks. 2004. Montana statewide elk management plan. Helena, MT: Montana Department of Fish, Wildlife, and Parks; Wildlife Division.
- Montana Wolf Management Advisory Council. 2003. Montana gray wolf conservation and management plan. Final environmental impact statement. C.A. Sime, ed. Montana Department of Fish, Wildlife and Parks, Helena, Montana. Pages 24-25.
- Powell, R. A. and W. J. Zielinski. 1994. Fisher. *In* The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States. USDA Forest Service, Fort Collins, CO. Gen. Tech Report RM-254.
- Ruediger, Bill, Jim Claar, Steve Gniadek, Bryon Holt, Lyle Lewis, Steve Mighton, Bob Naney, Gary Patton, Tony Rinaldi, Joel Trick, Anne Vandehey, Fred Wahl, Nancy Warren, Dick Wenger, and Al Williamson. 2000. Canada lynx conservation assessment and strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Missoula, MT. 142 pp.

- Ruggiero, L.F., K.B. Aubry, S.W. Buskirk, J.L. Lyon, W.J. Zielinski. 1994. The scientific basis for conserving forest carnivores: American marten, fisher, lynx and wolverine in the western United States. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. General Technical Report RM-254. 184 pp.
- Ruggiero, Leonard F., Keith B. Aubry, Steven W. Buskirk, Gary M. Koehler, Charles J. Krebs, Kevin S. McKelvey, John R. Squires. 1999. Ecology and conservation of lynx in the United States. General Technical Report RMRS-GTR-30WWW. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Sime, C.A. 1999. Domestic Dogs in Wildlife Habitats. Pages 8.1-8.17 in G. Joslin and H. Youmans, coordinators. Effects of recreation on Rocky Mountain wildlife: A Review for Montana. Committee on Effects of Recreation on Wildlife, Montana Chapter of The Wildlife Society. 307pp.
- Thiel, R. P. 1985. Relationship between road densities and wolf habitat suitability in Wisconsin. American Midland Naturalist. 113(2):404-407
- Tomasik E.; Cook, J. A. 2005. Mitochondrial phylogeography and conservation genetics of wolverine (*Gulo gulo*) of northwestern North America. Journal of Mammalogy. 86(2):386-396.
- USDA Forest Service. 1985. Flathead National Forest Land and Resource Management Plan. Kalispell, MT
- USDA Forest Service. 1986. The 1986 Recreation Opportunity Spectrum (ROS) Book. Washington, D.C.
- USDA Forest Service. 1988. Soil Survey of Flathead National Forest Area, Montana. Flathead National Forest. Kalispell, Montana.
- USDA Forest Service. 1995. Inland Native Fish Strategy. Environmental Assessment and Decision Notice. Intermountain, Northern and Pacific Northwest Regions.
- USDA Forest Service. 1999. Flathead National Forest Plan Amendment 21, Final Environmental Impact Statement: Management Direction Related to Old Growth Forests. Flathead National Forest, Kalispell, MT. 176 pages.
- USDA Forest Service. 2007. Northern Rockies Lynx Management Direction Record of Decision. March 2007. National Forests of Montana, and parts of Idaho, Wyoming, and Utah. Missoula, Montana.
- U. S. Fish and Wildlife Service. 1984. American Peregrine Falcon Recovery Plan (Rocky Mountain/Southwest Population). U.S. Fish and Wildlife Service, Region 6. Denver, Co. 105 pages.
- U.S. Fish and Wildlife Service. 1986. Recovery Plan for the Pacific Bald Eagle. U.S. Fish and Wildlife Service, Region 1 Portland, Oregon. 160 pages.
- U.S. Fish and Wildlife Service. 1987. Northern Rocky Mountain Wolf Recovery Plan. U.S. Fish and Wildlife Service, Region 6, Denver, Co. 119 pages.
- U.S. Fish and Wildlife Service. 1993. Grizzly Bear Recovery Plan. 181 pages.
- Werner, J. K. and J. D. Reichel. 1994. Amphibian and reptile survey of the Kootenai National Forest. 1994. Montana National Heritage Program, Helena, MT. 105 pp.
- Witmer, G.W., S.K. Martin, R. D. Skyler. 1998. Forest carnivore conservation and management in the interior Columbia basin: issues and environmental correlates. Gen. Tech. Rep. PNW-420. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 51 p. (Quigley, Thomas M., ed. Interior Columbia Basin Ecosystem Management Project: scientific assessment).

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GLOSSARY

ACTION ALTERNATIVE

An alternative which proposes some management action, as contrasted to the No Action Alternative.

ADMINISTRATIVE RULES OF MONTANA (ARM'S)

Administrative rules are agency regulations, standards or statements of applicability that implement, interpret, or set law or policy. An agency can also adopt administrative rules that describe the organization, procedures or practice requirements of the agency. Agencies are given rulemaking authority through the legislative process.

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.

AMERICANS WITH DISABILITIES ACT (ADA)

The Americans with Disabilities Act gives civil rights protections to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, State and local government services, and telecommunications.

ATV

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

BEST MANAGEMENT PRACTICES (BMPs)

Methods, measures or practices to prevent or reduce water pollution, including but not limited to, structural and non-structural controls, operation and maintenance procedures, other requirements, and scheduling and distribution of activities. Usually BMPs are applied as a system of practices rather than a single practice. BMPs are selected on the basis of site-specific conditions that reflect natural background conditions and political, social, economic, and technical feasibility.

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 (CFR) 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.

DRAINAGE

See Watershed.

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.

ECOSYSTEM MANAGEMENT

The use of an ecological approach to achieve productive resource management by blending social, physical, economic and biological needs and values to provide healthy ecosystems.

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 an part of the earth's surface.

an approaching fire from the wildland. FIRAs provide defensible space to increase effectiveness of suppression actions and

EYRIE

The nest of a bird, such as an eagle, built on a cliff or other high place.

FISH HABITAT

The place where a population of fish species lives and its surroundings; includes the provision of life requirements such as food and cover.

FISH PASSAGE

Clear access for migrating fish through a potential barrier.

FISHERY

The total population of fish in a stream or body of water and the physical, chemical, and biological factors affecting that population.

FORB

Any herbaceous (herb-like) plant other than grass or grass-like plants.

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.

FRY

The name applied to young fish from the time of hatching and until they have absorbed the yolk sac.

FSH

Forest Service Handbook

FSM

Forest Service Manual

FECUNDITY

Capable of producing offspring in great numbers.

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.

HAZARD TREE

A state that may result in an undesired event, the cause of risk. In a recreation a hazard applies to a tree that has a probability of falling on designated use areas.

INDIRECT EFFECTS

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

INFISH

The Inland Native Fish Strategy for the Intermountain, Northern, and Pacific Northwest Regions of the U. S. Forest Service.

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.

INTERIOR COLUMBIA RIVER BASIN (ICRB)

The parts of the watershed of the Columbia River Basin that lie in eastern Oregon, eastern Washington, Idaho, far western Wyoming, western Montana and small portions of northern Utah and northern Nevada.

INTERMITTENT STREAM

A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow.

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.

JUVENILE TROUT

The fingerling or sub-adult stages (not sexually mature).

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.

LANDSCAPE

The landforms of a region in the aggregate; the land surface and its associated habitats at scales of acres to many square miles; a spatially heterogeneous area.

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 performed.

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.

MOIST SITES (elk)

An important characteristic of elk habitat consisting of wet meadows, ponds, seeps, and springs, and typically located in more remote, upper-drainage perched sites.

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.

MONTANA NATURAL HERITAGE PROGRAM (MNHP)

Montana's source for reliable, objective information and expertise to support stewardship of our native species and habitats, emphasizing those of conservation concern.

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

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 WILDERNESS PRESERVATION SYSTEM (NFS)

All lands covered by the Wilderness Act and subsequent wilderness designations, irrespective of the department or agency having jurisdiction.

NATIVE FISH

Fish species that are indigenous to a region's waters, as opposed to introduced or exotic fish.

NATIVE SPECIES

Species that are indigenous to a region, as opposed to introduced or exotic species.

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.

OVERSTORY

The portion of the trees that form the uppermost canopy layer in a forest of more than one story.

PERENNIAL STREAMS

Streams that flow continuously throughout most years and whose upper surface generally stands lower than the water table in the region adjoining the stream.

POTENTIAL HABITAT (Wildlife)

Habitat that is likely to be occupied by a wildlife species or group of species, currently or in the near future.

POTENTIAL VEGETATION GROUP (PVG)

Groupings of habitat groups on the basis of similarity of general moisture or temperature environment.

PREFERRED ALTERNATIVE

The agency's preferred alternative is the alternative which the agency believes would best fulfill its statutory mission and responsibilities, giving consideration to 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.

REACH

A length of stream channel, (lake or inlet) exhibiting, on average, uniform hydraulic properties and morphology.

REARING HABITAT

In the case of juvenile westslope cutthroat trout, this is primarily the pool environment in streams.

RECORD OF DECISION

A document separate from but associated with an environmental impact statement that publicly and officially discloses the responsible official's decision on the proposed action.

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, Roaded 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.

RESEARCH NATURAL AREA (RNA)

Areas established by the USDA Forest Service as representative examples of minimally disturbed natural ecosystems for non-manipulative research activities, monitoring, and the protection of biological diversity.

RESIDENT FISH

Non-migratory fish species.

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.

RIFFLE

A shallow rapid where the water flows swiftly over completely or partially submerged obstructions (rocks, etc.) to produce surface agitation, but standing waves are absent.

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.

RIPARIAN HABITAT CONSERVATION AREA (RHCA)

Portions of watersheds where riparian-dependent resources receive primary emphasis and management activities are subject to specific standards and guidelines. RHCAs were established as INFISH guidelines.

RIPARIAN LANDTYPE

Integrated map units of the types of riparian habitats based on topography, substrate materials (i.e. clays or boulders), and associated vegetation.

RIPARIAN WILDLIFE HABITAT

Vegetation growing close to a watercourse, lake, swamp, or spring that is generally critical for wildlife cover, fish food organisms, stream nutrients and large organic debris, and for streambank stability.

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

A National Forest area which (1) is larger than 5000 acres, or if smaller than 5000 acres, contiguous to a designated wilderness or primitive areas; (2) contains no roads; and (3) has been inventoried by the Forest System for possible inclusion in the wilderness preservation system.

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.

SILVICULTURE

The theory and practice of controlling the establishment, composition, growth, and quality of forest stands in order to achieve the objectives of management.

SILVICULTURE DIAGNOSIS

The process of compiling, summarizing, analyzing, and recording of stand data.

SNAG

A standing dead tree usually greater than five feet in height and six inches in diameter at breast height.

SOIL AND WATER CONSERVATION PRACTICES (SWCP)

A practice that can help insure that soil productivity is maintained, soil loss and water quality impacts are minimized, and water-related beneficial uses are protected. Site specific SWCP supplement and include the Forest Plans Standards, State designated BMP, and other guides that the Forest Service will implement or adjust to conserve soil and water resources on the NFS lands.

SPAWNING HABITAT

Areas of substrate which provide well oxygenated and suitable sized gravels for fish spawning.

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.

STREAMSIDE MANAGEMENT ZONE (SMZ)

An area adjacent to the bank of a stream or body of open water where extra precaution is necessary to carry out forest practices in order to protect bank edges and water quality.

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.

TIERING

Refers to the elimination of repetitive discussions of the same issue by incorporating by reference the general discussion in an environmental impact statement of broader scope. For example, a project environmental assessment could be tiered to the Forest Plan EIS.

TRAILHEAD

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

UNGULATE

A mammal with hooves.

VISUAL RESOURCE

The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

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.

WATERSHED

The land area drained by a river system.

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.