Environmental Assessment

Hope Sagle Land Exchange

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Bonner County, Idaho
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Chapter 1 Purpose and Need

Introduction
Land exchanges are a valuable tool to acquire threatened wetlands, wildlife habitat and recreation lands for public benefit while disposing of lands that are difficult, if not impossible, to manage.

The Forest Service is proposing to exchange National Forest System (NFS) land (federal) for land currently owned by Stimson Lumber Company (non-federal). This environmental assessment (EA) provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact (40 CFR 1508.9(a)(1)).

The Hope Sagle Land Exchange federal and non-federal parcels are scattered throughout Bonner County. The federal parcels are primarily bounded by the Pend Oreille River to the north (with one parcel lying north of the river), Highway 41 to the west and south and Lake Pend Oreille to the east. The non-federal parcel is located in Township 56 North, Range 2 East, portions of sections 15, 16, and 22 (see Figure 1 for vicinity map or attached map packet for individual parcel maps).

Background
In 2001 the Forest Service initiated discussions with Stimson Lumber Company regarding the proposed land exchange. Various federal and non-federal parcels were considered for the exchange. The federal parcels added and removed from the parcel mix were numbered sequentially. During the addition and deletion of parcels, Parcel F-6 was dropped from consideration and the numbering system continued from there. Therefore, you will not find a Parcel F-6 in the ten total parcels included in this exchange. The final federal and non-federal parcels being included in this proposed land exchange were agreed to in September 2009 (see Appendix A for the legal descriptions for each parcel and the attached map packet for parcel maps).

The parties executed an Agreement to Initiate (ATI) for this land exchange in September 2009. The land exchange contains one non-federal parcel totaling approximately 922 acres and ten federal parcels totaling approximately 1,821 acres. Land exchanges are based on providing equal land value rather than equal acres, therefore; more federal parcels are included in this proposed land exchange in order to provide a certified appraiser with a variety of valuation options during the appraisal process. Every attempt will be made to reach equal value using the least amount of federal parcels included in this proposal. The proposed exchange configuration is documented in an ATI executed by Stimson Lumber Company and the Idaho Panhandle National Forest in 2009 (see Social and Economic section of project file). The final exchange configuration will be based on the appraisal, as well as priority parcels identified by both parties. See Appendix C which generally describes the land exchange process.

The federal parcels offered for conveyance to Stimson Lumber Company are generally confined to ½ section or smaller, located in areas where land use patterns are changing from wildland to subdivisions. Most of the federal parcels are isolated by surrounding private ownership. All federal and non-federal parcels are located in Bonner County in an area generally described as the scattered lands, named so for the patchwork of scattered federally owned lands amongst private land.
Figure 1 – General location of Federal and non-federal parcels
Purpose and Need

The purpose of this proposed land exchange is to provide for more effective management of National Forest System (NFS) lands and private timberlands through consolidation of existing federal and private ownership.

Currently there are isolated federal parcels adjacent to or surrounded by Stimson Lumber Company parcels as well as isolated Stimson Lumber Company parcels adjacent to or surrounded by NFS lands. Isolated land parcels are difficult and more expensive to access and manage. There is a need to consolidate ownership to improve access, reduce management costs, and provide improved opportunities to meet Forest Service and private management objectives for these lands.

The following describes the need for the project. These need statements were developed in consideration of the laws, regulations and policies.

- There is a need to improve land management efficiency by consolidating ownership.
- There is a need to improve Threatened and Endangered species management by acquiring federal ownership within the Lightning Grizzly Bear Management Unit.
- There is a need to increase the lower elevation spring range for ungulate species including elk, moose, and white tailed deer.
- There is a need to increase protection of aquatic habitat for fish species, such as westslope cutthroat trout, that could potentially result in a downstream benefit for bull trout.
- There is a need to provide for a National Recreation Trail trailhead for the Bee Top Trail 120 which currently does not have a trailhead.

Proposed Action

The Forest Service, U.S. Department of Agriculture and Stimson Lumber Company, acting through their authorized representatives, are jointly proposing to exchange fee title to some or all of the approximately 1,821 acres of federal land and 922 acres of non-federal land (see Appendix A for legal descriptions and the map packet for locations of parcels) located within the boundaries of the IPNF. The specific federal parcels that will be included in the final exchange will be determined by the value of federal and non-federal lands. The final land exchange configuration will be determined in part based on land value as determined by an appraisal of both the federal and non-federal lands prepared and approved in accordance with the Uniform Standards for Professional Appraisal (USPAP) and the Uniform Appraisal Standards for Federal Land Acquisition.

The legal descriptions for the federal and non-federal parcels are in Appendix A. Maps are located in the attached map packet.

Scope of Analysis

The physical bounds of this EA are the parcels identified for exchange as identified in Appendix A. Based on specific resources, however, the bounds of analysis may include larger areas that could potentially be affected by foreseeable future management actions (i.e. watersheds). The analysis contained in this document is limited to an assessment of the direct, indirect, and cumulative effects of proposed activities. It does not include any proposed programmatic management or larger scale planning. The analysis summarized in this environmental assessment
is intended to determine whether the proposed land exchange would cause any significant effects that would warrant the preparation of an environmental impact statement.

**Policy Direction and Legal Guidance**

**Forest Plan Direction**

The Forest Plan provides direction for all resource management programs and resource activities on the Idaho Panhandle National Forests. The Forest Plan consists of Forest-wide goals and standards as well as Management Area specific standards and guidelines that provide for land uses and resource outputs. The Forest Plan describes standards related to lands on page II-35 and further guidance in Appendix E of the Plan.

The National Forest System land within the Idaho Panhandle National Forests has been divided into 19 management areas (MAs), each with different management goals, resource potential, and limitations (Forest Plan, pp. III-1 to III-88). Federal parcels included in this proposed land exchange consist of lands within MAs 1, 4, and 9. Management area direction describes MA 1 as lands designated for timber production; MA 4 as lands designated for timber production within big game winter range; and MA 9 as lands capable of timber production but isolated by nonpublic ownership. The non-federal parcel included in this proposal is surrounded by MA 10 which consists of a cross section of National Forest lands that have high value for semi-primitive recreation.

All actions contribute to achieving the goals, objectives, and desired future conditions identified in the Forest Plan for the Idaho Panhandle National Forests issued in August 1987 and as amended (hereafter referred to as the Forest Plan).

**Land Exchange Direction**

Direction regarding land exchanges is given in the Code of Federal Regulations, Title 36, Part 254, Subpart A, 254.3. Land exchanges are discretionary, voluntary real estate actions between federal and non-federal parties. Until the parties enter into a legally binding exchange agreement, any party may withdraw from and terminate an exchange proposal at any time during the exchange process.

The authorized officer may complete an exchange only after a determination is made that the exchange is in the best interest of the public.

When considering the public interest, the authorized officer shall give full consideration to the opportunity to achieve better management of Federal lands and resources, to meet the needs of state and local residents and their economies, and to secure important objectives, including but not limited to: protection of fish and wildlife habitats, heritage resources, aesthetic values, watersheds, and wilderness; enhancement of recreation opportunities and public access; consolidation of lands and/or interests in lands, reduction in forest boundary survey and management costs; consolidation of split estates; expansion of communities; accommodation of existing or planned land use authorizations; promotion of multiple use values; implementation of applicable Forest land and resource management plans; and fulfillment of public needs.

To determine that an exchange is in the best interest of the public, the authorized officer must find that:
The resource values and the public objectives served by the non-federal lands to be acquired must equal or exceed the resource values and public objectives served by the federal lands to be conveyed, and the intended use of the conveyed federal lands will not substantially conflict with the established management objectives on adjacent federal lands, including Indian Trust Lands.

Lands or interests to be exchanged must be of equal value or equalized by procedures specified in 36 CFR 254.12, specifically, through modification of the exchange proposal to exchange land of equal value. After an Agreement to Initiate (ATI) is signed, the authorized officer shall undertake an environmental analysis in accordance with the National Environmental Policy Act of 1969, the Council on Environmental Quality regulations (40 CFR parts 1500-1508), and Forest Service environmental policies and procedures. In making this analysis, the authorized officer shall consider timely written comments received in response to the published exchange notice.

Land Appraisals
The federal and non-federal lands involved in the exchange will be appraised in accordance with the Uniform Standards for Professional Appraisal Practices (USPAP) and the Uniform Appraisal Standards for Federal Land Acquisition.

Laws

Federal Laws
- National Environmental Policy Act of 1969 (as amended)
- Endangered Species Act (ESA) of 1973 (as amended)
- National Historic Preservation Act of 1966 (NHPA)
- The Archaeological Resource Protection Act (1976)
- Resources Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (as amended)
- Forest and Rangeland Renewable Resources Planning Act of 1974
- National Forest Management Act of 1976

The General Exchange Act and the Weeks Act are the principle exchange authorities while FLPMA and FLEFA are supplemental to the principle authorities and provide operational guidelines in completing land exchanges.

Executive Orders
- Executive Order 11988 (floodplain management)
- Executive Order 11990 (protection of wetlands)
• Executive Order 12898 (environmental justice)
• Executive Order 12962 (aquatic systems and recreational fisheries)
• Executive Order 11593 (protection and enhancement of the cultural environment)

Decisions to be made

This EA is not a decision document. The EA discloses the environmental consequences of proceeding with the proposed action or any alternatives, and aids the deciding officer in determining whether the effects disclosed would have a significant effect on the environment. If the deciding officer determines there would be no significant effects, an alternative will be selected and a Finding of No Significant Impact and a Decision Notice will be issued. The final decision as to which federal parcels will be included in the land exchange will be based on the information in this document, on public comments, and appraisal.

The responsible official is the Idaho Panhandle Forest Supervisor, whose authority is delegated by the Director of Recreation, Minerals, Lands, heritage and Wilderness. The responsible official will determine whether or not the Forest Service will proceed with the proposed land exchange, and if so, under what terms and conditions. If an action alternative is chosen, Forest Service personnel will use this document to guide in implementation and monitoring.
Chapter 2 Alternatives including the Proposed Action

When identifying lands available for exchange, certain limiting criteria are applied to assure compliance with existing laws, regulations and policy. Also, a successful exchange is dependant upon agreement of the parties involved. See Appendix C for a discussion of the land exchange process. The following information is pertinent to identifying lands available for exchange.

- Lands are limited to those parcels both parties are willing to exchange and accept.
- Exchanges must be made on an equal value for equal value basis as required under the Federal Land Policy and Management Act (FLPMA).
- Federal lands considered for conveyance and acquisition are in compliance with Landownership Planning Criteria listed in Appendix E of the Forest Plan.
- Federal lands considered for conveyance have no cultural resources which are eligible for the Natural Register of Historic Places (NRHP).
- Acquired private parcels should improve administrative efficiency, including cost effectiveness.
- Acquired private parcels should minimize future management conflicts with adjacent landowners.
- The land exchange alternative development process considered each party’s anticipated 10 year management plans, land stewardship, and compliance with existing Idaho and Federal laws and regulations.

This chapter describes and compares the proposed Hope Sagle Land Exchange with the No Action Alternative. It also identifies other potential alternatives to the Proposed Action and explains why these alternatives are not evaluated in detail.

The alternatives evaluated in detail are compared with one another by sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public. Some of the information used to compare the alternatives is based upon the design of the alternative and other information is based upon the environmental, social and economic effects of implementing each alternative.

Public Involvement

The Hope Sagle Land Exchange project file contains the public letters, records of phone calls and visits to the area, mailing lists, the Quarterly Schedule of Proposed Actions, and other documentation of the outreach and discussions held with members of the public (see the Project Development section of the project file).

The purpose of a public scoping is to determine the scope of the issues to be addressed and to identify significant issues relative to the Proposed Action. Scoping also helps to identify other alternatives to evaluate in detail, assists in determining data needs, provides input to formulate analysis/decision criteria and helps suggest feedback to those providing input. The Public Involvement Plan is located in the project file.

Notices inviting scoping comments were published in the Gem State Miner and the Bonner County Daily Bee for four consecutive weeks during September and October of 2008. These notices asked for public comment on the Proposed Exchange from September 17 through
October 16, 2008. In addition, as part of the public involvement process, the Sandpoint Ranger District posted a legal notice for public comment in the Coeur d’Alene Press on September 20, 2008 and mailed a scoping letter to 162 people, agencies or organizations describing the Proposed Exchange. Sixteen people or organizations responded to our letter with comments, suggestions, and alternatives to consider. Content analysis of these comments generated the issues below; this document can be found in the public involvement section of the project file.

Since 2003, several meetings have taken place between the Sandpoint District Ranger and Bonner County Commissioners. The history of the proposed exchange was outlined, the purpose and need for the proposal was explained and maps were handed out. The commissioners were supportive of the proposed exchange.

Commensurate with Forest Service authority and responsibility to manage National Forest System lands is the obligation to consult, cooperate, and coordinate with federally recognized American Indian tribes in developing and planning management decisions regarding resources that may affect tribal rights established by treaty or Executive Order. The Forest Service complied with this shared responsibility by working with the Tribes on a government-to-government basis and in a manner that attempts a reasonable accommodation of their needs, without compromising the legal positions of the Tribes or the federal government.

In April, 2008, the IPNF Heritage Manager along with district representatives, met with representatives of the Coeur d’Alene Tribe. The Proposed Exchange was described and discussed. The purpose and need for the proposed exchange was explained to Tribal representatives and discussions followed. Tribal representatives indicated two concerns related to the project. The Forest Service followed up with a letter to the Tribal Chief in September, 2008 to discuss the concerns brought up during the April meeting and requested further discussions if additional resolution was needed (see Social and Economic section of project file).

The IPNF Heritage Manager and district personnel met with representatives of the Kalispel Tribe in April and September of 2008. The proposed exchange was described and discussed. The purpose and need for the proposed exchange was explained to Tribal representatives and discussions followed. The April meeting brought up concerns that were discussed at the September 2008 meeting. A follow up letter dated September 11, 2008 was sent to the Tribe summarizing resolutions discussed during the September 2008 meeting and requested further discussions if resolution was not agreed upon (see Social and Economic section of project file).

Issues

Issues were identified by the interdisciplinary team using current knowledge of conditions and concerns and through scoping described above. These issues reflect both agency and public concerns. After consideration, these issues were sorted into two categories: key issues and analysis issues. Each category is discussed below.

Key Issues

Key issues are those within the scope of the project that are of sufficient concern to result in the development of alternatives to the proposed action. There were no issues that resulted in irresolvable conflicts other than opposition to the proposed action. Those comments are addressed in Alternative 1 – No Action.
Analysis Issues
Analysis issues are those that did not warrant development of alternatives to the proposed action. These issues were analyzed to show the effectiveness of accomplishing the purpose and need and to show compliance with environmental laws and regulations (e.g. the Endangered Species Act) and to disclose the potential environmental effects of the alternatives on the various resources.

- Effects of project activities on wetlands and flood plains
- Effects of project activities on fisheries habitat
- Effects of project activities on wildlife habitat
- Effects of project activities on recreation resources
- Effects of project activities on sensitive and rare plants
- Social effects of proposed activities

Alternatives Considered
The process used in developing alternatives to evaluate in detail involved bringing together a considerable amount of information. First, the Interdisciplinary (ID) team and lands staff considered the history of land acquisition and land exchanges along with land ownership adjustment direction in the Forest’s Land and Resource Management Plan, as amended (August 1987). Second, the lands staff in cooperation with Stimson Lumber Company, the non-federal party, evaluated all opportunities to achieve the identified purpose and need statements listed in Chapter one. After a conceptual Proposed Action Alternative was developed, the lands staff and ID team reviewed the existing information on each parcel to convey in determining if the proposal would comply with the Forest wide management direction. The Forest Service then confirmed that Stimson Lumber Company was willing to participate in the Proposed Exchange.

The Responsible Official has selected the Proposed Action and No Action Alternatives to evaluate in detail based on ID team input, Tribal input and public involvement.

Alternatives Considered in Detail

Alternative 1 – No Action
The current landownership pattern within the analysis area would remain the same. The proposed exchange between the Forest Service and Stimson Lumber Company would not occur under this alternative. Analysis of this alternative provides a baseline for comparing the effects of the other alternatives, providing the decision maker with a clearer basis for a reasoned choice among the alternatives studied in detail.

Alternative 2 – Proposed Action
The Forest Service and Stimson Lumber Company, acting through their authorized representatives, are jointly proposing to exchange some portion of approximately 1,821 acres of National Forest System land for approximately 922 acres of land currently owned by Stimson Lumber Company all located within Bonner County. See Appendix A for legal descriptions and the map packet for parcel maps. The final mix of parcels will be evaluated based on balancing their economic and resource values with the lands that will be acquired. See Appendix C for explanation of appraisal process.
It is the intent of the parties that the mineral estate of the federal parcels shall be conveyed together with the surface estate; and the mineral estate of the non-federal estate shall be conveyed subject to specific outstanding hardrock minerals under P-3 and oil and gas rights under P-1 and P-4.

Furthermore, the federal and non-federal lands will be conveyed subject to several outstanding rights and encumbrances, i.e. roads, utilities, etc. which have been determined acceptable to each party.

The United States will reserved the standard right-of-way thereon for ditches or canals constructed by the authority of the United States over and across the federal land being conveyed under the authority of the General Exchange Act.

The United States will reserve a perpetual non-motorized easement for the Bayview Blacktail #230 trail and a perpetual easement for the Bayview Creek Spur A Road #2634A and Bayview Creek Spur A-1 Road #2634A-1.

Rights previously conveyed or permitted by the United States on National Forest parcels to convey would be protected. These rights include easements, water rights and cost share agreements and/or memorandums of understandings. Please refer to page 93 of this EA for listing and disposition of encumbrances, outstanding rights, and reservations on federal lands.

The Forest Service would manage the acquired non-federal parcels in accordance with the IPNF Forest Plan (USDA 1987). Existing management area (MA) acre allocation of all parcels proposed for conveyance can be found in Table 1. Proposed MA acre allocations of all parcels proposed for acquisition are displayed in Table 2. Land exchange regulations (36 CFR 254.3(f) state: “Lands acquired by exchange that are located within areas having an administrative designation established through the land management planning process shall automatically become part of the area within which they are located without further action by the FS, and shall be managed in accordance with the laws, rules, and regulations and land and resource management plan applicable to such area.

<table>
<thead>
<tr>
<th>Federal parcel number</th>
<th>Management Area</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-1 1</td>
<td>9</td>
<td>58</td>
</tr>
<tr>
<td>F-1 2</td>
<td>9</td>
<td>63</td>
</tr>
<tr>
<td>F-2 1</td>
<td>399</td>
<td></td>
</tr>
<tr>
<td>F-3 1</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>F-4 1</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>F-4 2</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>F-5 4</td>
<td>352</td>
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</tr>
<tr>
<td>F-6 4</td>
<td>160</td>
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<td>F-8 4</td>
<td>307</td>
<td></td>
</tr>
<tr>
<td>F-9 4</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>F-10</td>
<td>82</td>
<td></td>
</tr>
</tbody>
</table>
Table 2.– Management Area Acre Allocation for all Parcels to Convey and Acquire

<table>
<thead>
<tr>
<th>MA</th>
<th>Management Area Description</th>
<th>Federal Acres to Convey</th>
<th>Non-federal Acres to Acquire</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Timber production distributed throughout the Forest</td>
<td>687</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Timber production within big game winter forage habitat</td>
<td>1058</td>
<td>608</td>
</tr>
<tr>
<td>9</td>
<td>Areas of non-forest lands; not capable of producing industrial products; physically unsuited for timber production; capable of timber production but isolated by the above landtypes or nonpublic ownership</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Areas that have high value for semi-primitive recreation that are in blocks of 2,500 acres or more and are part of the roadless resource</td>
<td></td>
<td>313</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>1,821</strong></td>
<td><strong>921</strong></td>
</tr>
</tbody>
</table>

Stimson Lumber Company would generally manage the acquired federal parcels using shelterwood or precommercial thinning harvest options with some road building. Appendix B contains more specific harvest information by federal parcel.

**Alternatives Eliminated from Detailed Study**

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for a reasonable range of alternatives designed to achieve the purpose and need. An alternative that would purchase the non-federal parcels was eliminated from detailed study for reasons summarized below.

**Exchange Selected Federal Parcels and Maximize Cash Payment to Stimson Lumber Company (up to 25% of the Appraised Value of the Federal Parcels) to Achieve Equal Value**

This alternative was dropped from further consideration for several reasons. First, it is the policy of the Forest Service to minimize, to the greatest extent possible, equalization payments. Inclusion or exclusion of lands is the preferred methods to equalize. When comparing to other regional and national priorities, it is unlikely that the Forest Service could get the funding needed for such an equalization payment. Additionally, it is possible that the Forest Service would not achieve its purpose and need goals to the greatest extent. Isolated federal parcels that could have been exchanged, if lands rather than cash were used to equalize values, would remain in federal ownership under this scenario.

**Purchase the non-federal Parcel Identified in the Proposed Action Alternative**

This alternative was not acceptable to Stimson Lumber Company because they do not want to sell their timber producing lands and they do not want to lose any timber producing acreage per letter to the Forest Service (project file). Selling lands at fair market value which are managed for sawlogs would not meet company long term goals and objectives. This alternative would also not achieve the Forest Service’s need to convey isolated land parcels that are difficult and more
expensive to access and manage. Also, when comparing to other regional and national purchase
priorities, it is unlikely that the Forest Service could get the funding needed for purchase.

Require Deed Restrictions or Conservation Easements on Conveyed Federal Parcels

Completing the Proposed Exchange with the addition of a deed restriction or conservation
easement on Federal parcels to convey was considered and discussed by the Forest Service with
Stimson Lumber Company.

The Forest Service reviewed the need for a deed restriction or conservation easement though the
process of evaluating effects in the environmental analysis. In Chapter 3, the existing condition of
the affected environment and the possible effects of Stimson’s foreseeable management actions
were disclosed. Deed restrictions or conservation easements on conveyed parcels would not
significantly address issues related to Threatened and Endangered species, sensitive species, old
growth, wetlands/floodplains, and heritage resources.

The net effects of the Proposed Exchange would result in an increase in federally managed
grizzly bear habitat as well as fish habitat, including the listed bull trout. Alternative 2 would have
no immediate impacts on grizzly bears, it would allow for management of the land toward
achieving or maintaining standards for the BMU. The long-term effects of Alternative 2 would
result in some beneficial effects to fish habitat as well. The activities associated with Alternative 2
may impact westslope cutthroat trout individuals or their habitat, but will not likely contribute to
a trend towards Federal listing or cause a loss of viability to the population or species as
described in the Environmental Consequences narrative; therefore deed restrictions or
conservation easements would not significantly benefit westslope cutthroat trout.

Chapter 3 reveals the habitat values for threatened, sensitive and management indicator wildlife
species on conveyed parcels in the Proposed Exchange do not warrant protection under this
alternative. There is no old growth within the proposed exchange parcels, therefore deed
restrictions or conservation easements would not affect old growth habitat on the IPNF.

Executive Orders 11988 and 11990 direct the Forest Service to take special care when
undertaking actions that may affect wetlands or floodplains, directly or indirectly. Agencies are
required to avoid disturbing these unique areas whenever there is a practical alternative that
would minimize environmental harm. The Proposed Exchange would result in a small increase of
floodplains and wetlands under Federal management. A review of existing wetland and floodplain
acreage on conveyed parcels revealed deed restrictions or conservation easements would not
significantly contribute towards protection of unique wetland and floodplain resources.

There are no sites eligible for the National Register of Historical Places on the Federal parcels to
convey. Contacts with Tribes and a cultural survey of the exchange parcels revealed that no
cultural sties or traditional cultural properties would be adversely affected by the proposal or
alternatives, so a need for a deed restriction/protective covenant related to cultural resources was
not identified.

Based upon information disclosed in Chapter 3, it was determined that deed restrictions or
conservation easements on conveyed parcels is not warranted to comply with legal, regulatory
requirements, executive orders, policy, or to meet Forest Plan management requirements. In
addition, an August 4, 2010 e-mail by Stimson Lumber Company stated “…deed restrictions
and/or conservation easements encumbering land received by Stimson Lumber Company is
unacceptable. Stimson Lumber Company expects the USFS lands it is to receive will be unencumbered as well” (project file). Since this alternative would not be acceptable to the non-federal party, it would have the same consequence as the No Action Alternative. If the Forest Service were to insist on this alternative, the Proposed Exchange alternative would no longer be viable. Therefore, deed restrictions or conservation easements were not fully developed or analyzed, except as the No Action alternative.
Comparison of Alternatives

This section provides a summary of the effects to the National Forest System lands of implementing each alternative. Information in Table 3 is focused on activities and effects where different levels of effects or outputs among alternatives can be distinguished quantitatively or qualitatively.

Table 3. Comparison of Issues by Alternative

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 – No Action</th>
<th>2 – Proposed Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threatened, Endangered, and Sensitive Plant Habitat</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Howellia aquatilis</em></td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td><em>Silene spaldingii</em></td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td>Aquatic, peatland, subalpine and cold forest habitat</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Deciduous riparian, wet forest guild, moist forest guild, <em>Botrichium species</em>, and <em>Cypripedium faciculatum</em></td>
<td>No effect</td>
<td>May impact individuals or habitat but will not likely contribute to a trend toward Federal listing or loss of viability to the population or species</td>
</tr>
<tr>
<td><strong>Water Quality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Wetland/Floodplain Acquired</td>
<td>No change</td>
<td>10.6 miles/2.089 acres</td>
</tr>
<tr>
<td>Total Wetland/Floodplain Conveyed</td>
<td>No change</td>
<td>8.56 miles/1.34 acres</td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net change in Beetop Roadless area (acres) to Federal estate</td>
<td>No change</td>
<td>313 acre increase</td>
</tr>
<tr>
<td>Overall change in ROS setting</td>
<td>No change</td>
<td>Some displacement would occur</td>
</tr>
<tr>
<td><strong>Threatened and Endangered Wildlife and Fish Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grizzly Bear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodland Caribou</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gray Wolf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada Lynx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kootenai River White Sturgeon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bull Trout</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sensitive Wildlife and Fisheries Species/Special Habitats</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bald Eagle</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Flammulated Owl</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause</td>
</tr>
<tr>
<td>Issue</td>
<td>Alternative 1 – No Action</td>
<td>Alternative 2 – Proposed Action</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Black-backed Woodpecker</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Black Swift</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Harlequin Duck</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Peregrine Falcon</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Pygmy Nuthatch</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
<tr>
<td>Common Loon</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Fisher</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
<tr>
<td>Wolverine</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Northern Bog Lemming</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Townsend’s Big-eared Bat</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Fringed Myotis</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
<tr>
<td>Coeur d’Alene Salamander</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Western Toad</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Burbot</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Interior Redband Trout</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Westslope Cutthroat Trout</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
</tbody>
</table>

**Management Indicator Species and Other**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Alternative 1 – No Action</th>
<th>Alternative 2 – Proposed Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Goshawk</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
<tr>
<td>Issue</td>
<td>1 –No Action</td>
<td>2  Proposed Action</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Pileated Woodpecker</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
<tr>
<td>American Marten</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
<tr>
<td>White-tailed Deer</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Rocky Mountain Elk</td>
<td>No impact</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
</tbody>
</table>

**Social and Economic**

<table>
<thead>
<tr>
<th></th>
<th>1 –No Action</th>
<th>2  Proposed Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>One time administrative savings to IPNF</td>
<td>0</td>
<td>$46,500</td>
</tr>
<tr>
<td>Change in annual administrative costs to IPNF</td>
<td>No change</td>
<td>Minor decrease</td>
</tr>
<tr>
<td>Change in Bonner County tax revenues</td>
<td>No change</td>
<td>Minimal decrease</td>
</tr>
</tbody>
</table>
Chapter 3 – Affected Environment and Environmental Consequences

Introduction

This section provides a summary of the affected environment and environmental consequences analysis of both Alternative A - No Action Alternative and Alternative B - The Proposed Action Alternative, as it pertains to each potentially-affected resource. As such, it provides the necessary information to determine whether or not to prepare an Environmental Impact Statement.

The effects analysis in this section discloses the direct, indirect and cumulative effects of the proposed action and alternatives, as directed by the Forest Service NEPA procedures (36 CFR part 220). The analysis of cumulative effects considers the effects of past, present and reasonably foreseeable actions in combination with effects predicted from the proposed action and alternatives. Regarding the consideration of past actions, the Forest Service NEPA procedures follow guidance provided by the Council on Environmental Quality:

With respect to past actions, during the scoping process and subsequent preparation of the analysis, the agency must determine what information regarding past actions is useful and relevant to the required analysis of cumulative effects. Cataloging past actions and specific information about the direct and indirect effects of their design and implementation could in some contexts be useful to predict the cumulative effects of the proposal. The CEQ regulations, however, do not require agencies to catalogue or exhaustively list and analyze all individual past actions. Simply because information about past actions may be available or obtained with reasonable effort does not mean that it is relevant and necessary to inform decisionmaking. (36 CFR 220.4 (f)).

A summary list of the past, present, and reasonably foreseeable actions that could contribute to cumulative effects are shown below. Details of these actions are located in Appendix B and in the Project Development section of the project file and in specialist reports. Past actions (e.g., road construction, timber harvest) and natural processes (such as wildfires) contribute to present effects or existing environmental conditions. Not all listed actions may be considered in each cumulative effects analysis; each analysis examines only those actions and events that are relevant to the resource in question.

**Past Actions and Events**
- Timber harvest
- Road construction

**Ongoing and Reasonably Foreseeable Actions**
- Fire suppression
- Residential development
- Special use permits
- Hunting
- Firewood gathering
- Trail use and Maintenance
- Recreational Use
- Road maintenance
- Activity on industrial private lands – See Appendix B for specific actions

The objective of this section is to disclose the potential for occurrence of and the potential for development of valuable minerals within the proposed Hope Sagle Land Exchange parcels. All
federal and non-federal parcels proposed for exchange were evaluated in the Minerals Specialist Report. This report is located in the project file.

Non-federal and federal lands were analyzed for their land status and mineral potential. These lands were also reviewed for the presence of potentially hazardous mining-related substances and public safety issues. This review revealed that no mining related substances or public safety issues are present on the federal and non-federal parcels. Field examinations of lands involved were reviewed during the field seasons of 2005-2008. Mineral potential was rated according to the Bureau of Land Management classification system. The mineral potential categories include No Potential, High, Moderate, Low and Potential not determined.

**Regional Geology**

**Federal Parcels**

All federal exchange parcels are located along the western edge of the Belt Basin. The basin derives its name from the rocks of the Belt-Purcell Supergroup which constitute one of the three primary lithologic types present in the land exchange area. The other major rock types found in the area are associated with the intrusion of the Kaniksu Batholith Complex, and the Priest River Complex Metamorphic and Intrusive Suite.

The general geomorphology of the federal parcels could be typified by alternating upland areas and valleys. The major upland areas are dissected by two major glacially in filled valley systems. From east to west the sequence begins with the Talache Uplands that borders on Lake Pend Oreille, the Cocolalla Valley, Cocolalla Uplands, the Hoodoo Valley, and then uplands associated with the Spokane Dome.

Structurally, the region is dominated by the Purcell Trench. The Purcell Trench is a faulted, structurally controlled north trending major depression which extends through the exchange area and ultimately into Canada. Other faults in the area trend to the northwest and are most numerous to the west of Lake Pend Oreille.

Glaciation has had a profound effect on the region. Continental ice sheets have periodically covered much of the exchange area, subsequently depositing and eroding material and significantly altering the geomorphology during each advance and retreat of the ice sheet. This is borne out specifically by the impacts the periodic flooding of Glacial Lake Missoula has had on the area. Glacial deposits cover the low lying areas to significant depths with other deposits being found to varying depths throughout portions of the rest of the exchange area. The glacial deposits are varied and consist primarily of Glacial Lake Missoula flood deposits in the low lying valleys with tills, outwash, and other deposits in other portions of the area.

**Non-federal parcel**

The major landform in the area of the non-federal parcel is a glacially in filled valley that abruptly transitions into very steep mountainous terrain due to the Hope fault. The Hope fault is the defining structural feature with a geomorphic expression that is quite notable. The fault trends to the northwest with that area to the north of the fault being significantly higher in elevation.
**Mining History**

**Federal Parcels**
All federal exchange parcels are located in the Pend Oreille Mining District. Ore deposits in the district include silver-lead ores with lesser amounts of gold, copper, and tungsten. The ore deposits found in the area that are of economic significance vary considerably in size, grade, and continuity. The only production scale mine came from the Talache Complex along the west side of Lake Pend Oreille. Production from the mine occurred periodically from 1902 until the late 1960’s with the vast majority occurring in the 1920s and late 1930s. One small scale mine that also produced small quantities of ore was the Maiden Rock Mine which operated in 1934. At present, there are no ongoing operations in the district. Some exploration in the area is periodically carried out by small companies and/or individual prospectors.

Mineral material sources encompassing the federal parcels are ubiquitous throughout the valley portions of area. They consist essentially of sand and gravel pits with the material being primarily used for road construction purposes and other engineering related activities.

**Non-federalParcel**
The non-federal parcel is located along the western edge of the Clark Fork Mining District. Ore deposits in the district include silver-lead ores with lesser amounts of copper, iron, and zinc. All of the producing sites of any significance are located within two miles of the town of Clark Fork, Idaho. Commodity production was significant with the vast majority of the production coming from three mines; Whitedelf, Hope and Lawrence. These three sites are all within a mile of the town of Clark Fork. Production at the Whitedelf Mine started in 1926, the Hope Mine in 1925, and the Lawrence Mine in 1913. Some small scale production continued periodically until 1958 at the Whitedelf and Hope mines with production at the Lawrence Mine ending in 1942. There was some intermittent, very small scale production, from the Whitedelf and Hope mines in the 1960’s. There has been no production in the district since that time. At the present time there are no ongoing operations in the district. Some exploration has been periodically carried out by small companies and or individual prospectors.

There are some mineral material sources in the area of the non-federal parcel consisting of sand and gravel pits and excavated rock.

**Locatable Mineral Potential**
The mineral potential rating addresses the potential for the occurrence of undiscovered mineral resources. The mineral potential is rated according to the Bureau of Land Management classification system. This system includes categories of no potential, low, moderate, and high potential, to potential not determined.

**Federal Parcels**
The potential for locatable mineral resources is low for parcels F-1, F-3, and F-4. All of these parcels are located in the Talache Highlands, outside of the major fault zones where the major, producing mine sites in the area (Talache Complex and Maiden Rock) were located. Production from these sites occurred primarily in the first half of the century. In addition, the bedrock type in parcel 1 is different than those where mineralization is found. There was no evidence of mineralization or structure that would be conducive to mineralization found during the field reconnaissance. The geologic environment in these parcels is not favorable for the presence of locatable mineral resources that would have economical viability in terms of quality and potential
for reserves. The nearest producing site to the parcels is over three miles distant, and it produced only a very small amount of ore in 1934.

There was no evidence of past mining activity found on the properties. There are currently no existing mining claims or inventoried properties on the parcels.

Parcels F-2, F-7, F-8, F-9, F-10, and F-11 have no potential for locatable mineral resources. These parcels are located east of the Talache Highlands, outside of any major structure or fault zones that have know associations with mineralization in the area. These lithologic types in this region have very little to no potential for mineralization and are not known as ore body hosts. The geologic environment in these parcels is not favorable for the presence of locatable mineral resources that would have economic viability in terms of quality or potential for reserves. There was no evidence of past mining activity on the parcels.

The potential for a locatable mineral resource in parcel F-5 is low to moderate. There was no evidence of mining activity within the parcel; however, the two triangular pieces in Section 15 are separated by a patented mining claim that includes at least one mine site. There are no records of any production from the site. The geologic environment does have some elements that are conducive to locatable mineral resources although the area has not had any significant production of any resources.

Non-federal Parcel

The potential for locatable mineral resources is low for the non-federal parcel. The majority of the parcel south of Spring Creek is covered with glacial deposits. Bedrock in this parcel varies. Steep extensional faults that control mineralization in the area are likely not present in this parcel. The major producing mines that were active periodically, primarily during the first half of the century, are clustered and located over three miles south of the parcel.

This parcel is not in the same structurally controlled mineralized lineation or zone as the producing mines. There were three prospects within a mile of the parcel; however, they were non-producing ventures located in the Pritchard formation north of the parcel. The only evidence of past mining activity found were some possible small scale excavations in the same area that may have been exploratory in nature. The geologic environment is not generally favorable for development of a locatable mineral resource having economic viability in terms of resource quality and reserve potential.

Non-federal Outstanding Mineral right

There is a 14.5 acre portion of the non-federal parcel, located in Section 16, E ½ NE ½, which has an outstanding mineral right. A private individual owns 51% of the mineral rights, the remaining 49% of the mineral rights would be transferred to the Forest Service as a part of this proposed land exchange. The outstanding mineral right is a third party right not owned by Stimson Lumber Company. The Forest Service and the third party are bound by the terms of the prior legal transaction which separated the mineral and surface ownerships. As a result, the exercise of outstanding (third party) mineral rights is not subject to United States Department of Agriculture rules and regulations. The Forest Service would have limited authority to apply stipulation or mitigation requirements to any mining related activities. The owner of this right has been contacted numerous times over the past years by both the Forest Service and Rocky Mountain Elk Foundation to determine willingness to relinquish the mineral rights (project file). Despite these efforts the mineral rights for this parcel remains in third party ownership.
A field review of the area containing the outstanding mineral reservation was conducted in 2005 and further reviewed in 2007. This area is generally covered with glacial deposits to varying depths. Bedrock outcrops occur periodically, primarily in road cuts. There are three old prospects located within one mile of the area; however, they were non-producing exploratory ventures. The largest mines in the District are located three to four miles southeast of the area within a one mile radius of Clark Fork, Idaho.

The Whitedelf, Hope, and Lawrence were the primary producing mines in the district as noted previously. Although the Shepherd formation is the host for some of the ore produced from these mines, it is the structure, specifically the occurrence of steep extensional faults that controls the mineralization in the area (Anderson 1947) not lithology. The major producing mines are located and relatively closely spaced along the flanks of Lightning Creek and Mosquito Creek indicating a structural system conducive to mineralization in this specific area. It is likely this mineral right does not have the same structure and is not within the same mineralized lineations or zone that the producing mines were.

Due to faulting, it is also likely this mineral right is in a different stratigraphic horizon than the producing mines or prospects. The geological environment in this area is not particularly favorable for the presence of locatable mineral resources that would have economical viability in terms of quality and potential for reserves.

Historically, this entire region was heavily scrutinized and explored for potential mineral development; however, nothing was ever developed in the immediate area of the mineral right or in this parcel itself. The Bureau of Land Management database indicates no record of past claims or any present claims within the SW ¼ of Section 16 which is adjacent National Forest Service land that is subject to mining claims.

**Mineral Resource Potential on Non-federal Outstanding Mineral Right**

Based upon a review of the available geologic and mineral production information, field reviews, and subsequent analysis of the geological environment, the outstanding mineral right area has a low locatable mineral potential. There is no potential for any solid or hydrocarbon leasable resource. The salable mineral potential is low to moderate mostly in the form of sand and gravel.

The mineral right would be held by a private individual. As discussed above, upon the acquisition of any parcel or portions of a tract with outstanding mineral rights, the U.S. Forest Service would inherit the responsibility to administer the exercise of these rights by the mineral owner. Although negotiation is possible with respect to the manner of operations, the standard Forest Service Plan of Operations review and approval process used for mining activities on lands open to mineral entry would not be applicable. The exercise of outstanding mineral rights is not subject to U. S. Department of Agriculture rules and regulations and the Forest Service would have limited authority to apply stipulation or mitigation requirements to any mining related activities.

**Salable Mineral Potential**

**Federal Parcels**

The salable potential for parcels F-1, F-2, F-3, F-4, F-5, F-10, and F-11 is low. There are some glacial deposits of sand and gravel that may be suitable as a salable resource at some locales in the lowermost elevation areas of the parcels. However, these materials are common throughout the valley areas in the region with many existing sand and gravel pits. These parcels offer no particular advantage for development in terms of material quality, quantity, access, and
development potential. There is some potential for the development of landscape rock sites in the
granitic talus slopes, particularly in parcel F-10; however, there is no roaded access to these areas.

The potential for salable resources for parcels F-7, F-8, and F-9 is moderate. Gravels and sands
could be a suitable salable resource. These parcels are generally flat, roaded to varying degrees,
easily accessible and developable. The deposits are extensive enough to have viable reserves of
materials. However, these materials are common throughout the area with numerous existing pits
within the general vicinity of the parcels. Development of a salable resource would be dependent
on economic factors since there are already developed sites throughout the area.

The salable potential of parcel F-5 is low. Sands and gravels are found in a few locales, but the
material quality is marginal and the parcel area is not conducive to development. The white
crystalline limestone and marble may have some potential as a decorative stone; however, access
is presently limited.

Non-federal Parcels including Outstanding Mineral Right
The potential for a salable resource, specifically sand and gravel is low to moderate. However,
much of the 14.5 acres is not conducive to development of a pit site. In addition, there are
existing sand and gravel pits in the immediate area. The area offers no particular advantage for
development of a salable resource in terms of material quality, reserves, access, and ease of
development.

Leasable Mineral Potential

Federal and Non-federal Parcels including Outstanding Mineral Right
There is no potential for hardrock leasable mineral resources on both federal and non-federal
parcels to be exchanged. These lands are not prospectively valuable for any leasing act minerals.
There is no geothermal resources on either the federal or non-federal parcels. There is no
potential for leasable mineral development on any of these parcels.

Leasable Hydrocarbon Potential

Federal and Non-federal Parcels
There is no potential for leasable hydrocarbons on both federal and non-federal parcels to be
exchanged. There is no history of any leasable resources in the region. The BLM classifies federal
lands according to their leasable potential. The BLM classified the federal lands as not
prospectively valuable for leasables with a low potential rating (project record).

Summary
Based on this analysis of mineral potential and development risk, the Forest Geologist
recommends the exchange of surface and mineral estates subject to the existing outstanding
hardrock, and oil and gas rights.
Threatened, Endangered, and Sensitive Plants and Forest Species of Concern

The geographic scope of analysis for rare plant species was those parcels to be conveyed in the proposed Hope-Sagle Land Exchange. This analysis considered both short and long-term management activities, as it may affect known or suspected populations of TES plant species and FSOC plants and their potential habitat.

Laws and Regulations Applying to the Analysis

Protection of plant species deemed Threatened, Endangered, or rare (Forest Service "Sensitive" or “Species of Concern”) and protection for population viability are determined by Federal legislation, regulations, policy, and direction. Sensitive species are those species for which population viability is a concern such that additional impacts to the species may diminish species diversity goals of the Forest Service or cause a trend toward Federal listing. There are 54 Sensitive plant species listed for the north zone (Kaniksu portion) of the IPNF. Refer to the project file for a complete list of Sensitive species on the Kaniksu (April 2008).

The Kaniksu also tracks 23 Forest Species of Concern (FSOC). These species are considered to be secure at the global, regional, and state levels, but may be at risk at the Forest level. While Biological Evaluations are not required to address FSOC, botanists track their presence/absence and FSOC are addressed in effects analysis (National Forest Management Act).

There are two Threatened plants, water howellia (Howellia aquatilis) and Spalding’s catchfly (Silene spaldingii), listed by the US Fish and Wildlife Service for the IPNF. There are no listed endangered plants for the Idaho Panhandle National Forests. Threatened and Endangered plant species are managed under the authority of the Endangered Species Act (1973, as amended). The National Forest Management Act directs the Forest Service to review programs and activities to ensure that species do not become Threatened or Endangered as a result of the agency’s actions. Forest Service direction (FSM 2672.1-2672.43) requires that programs or activities be reviewed for potential effects on “rare species” and outlines policy, objectives and procedures. The IPNF is directed by the Forest Plan to manage plant populations so as not to contribute to the need for listing under the Endangered Species Act.

Analysis Methods

Field inventories were conducted on all federal parcels (parcels F-1 through F-5 and F-7 through F-11) proposed as part of the Hope-Sagle Land Exchange during appropriate survey seasons in 2005 and 2007. Botanists conducted high-intensity surveys in those areas considered high potential for suitable rare plant habitat within those parcels. The non-federal parcel proposed for acquisition was not surveyed for rare plants; however, a review of suitable habitat and rare plant habitat guilds was conducted for this parcel based on existing vegetation and cover type information, as well as aerial photograph interpretation.

Rare plant species guilds were used to assist in identifying potential rare plant habitat. District Timber Stand Management Record System (TSMRS) databases assisted in identifying suitable habitat types in each parcel proposed to convey. In addition, site-specific information from timber stand examination records, aerial photographs, topographic position, survey information, personal knowledge and professional judgment were used to identify the potential rare plant habitat. Known sites of TES and FSOC plants in the vicinity of the analysis area were also identified and incorporated in the overall analysis. Known plant information came from District Sensitive plant
Field reconnaissance was commensurate with the risk associated with the project, species involved and with the level of knowledge previously described. Field surveys were conducted in all areas that would have anticipated management activities that contained high potential suitable habitat. Surveyors walked through the areas with the potential to contain TES and FSOC plants during the growing season of those species likely to be found there. When rare plant individuals were found, intensive searches were conducted within the area.

**Existing Condition**

No suitable habitat for the threatened plant species, water howellia (Howellia aquatilis) and Spalding’s catchfly (Silene spaldingii) was located during field surveys, and no occurrences of either of these species were found during surveys.

Pine broomrape (Orobanche pinorum), a Forest Species of Concern, was located during field surveys in parcel 1. However, neither listed R1 Sensitive species, nor any other rare plant was located during field surveys.

Suitable habitat for Cypripedium fasciculatum was observed within parcels F-1, F-3, and F-11. Suitable habitat for rare Botrychium spp. was observed within parcels F-2, F-5, and F-7. A pond and wetland, surrounded by wet forest guild habitat also occurs within parcel 5, which has potential to support rare species such as Betula pumila var. glandulifera and Cypripedium pubescens var. parviflorum.

**Environmental Consequences**

**Direct and Indirect Effects of Alternative 1**

Under the No Exchange alternative, there would be no reasonably foreseeable impacts to rare plant populations or suitable habitat on NFS lands, since ownership and management practices within the parcels to exchange would not change from the current situation. Habitat capability on NFS lands within the analysis area would also not be changed from its current level. Rare plant species are afforded direct protection under existing policy (FSM 2670) and Law (NFMA 1976) which requires maintenance of viable populations of all existing native plant species.

This alternative would meet the intent and requirements of the Endangered Species Act and the National Forest Management Act.

**Direct and Indirect Effects of Alternative 2**

Under the Proposed Exchange, anticipated harvesting within conveyed federal parcels to Stimson Lumber Company would mostly occur in low potential habitat for rare plants. The application of Idaho’s BMP’s and required buffers for Riparian Habitat Conservation Areas (or RHCAs) would likely protect the viability of aquatic, peatland, and many wet forest-obligate rare species. Future timber harvest activities on conveyed federal parcels could have the potential to impact both the known Orobanche pinorum individual or previously undetected individual rare plants (i.e. Botrychium spp. or Cypripedium fasciculatum) and/or their suitable habitat.

The direct effect to the Orobanche pinorum individual would be a change of ownership on lands where it exists.
As a result of direct and indirect effects to rare plant species and/or their habitat, the proposed Hope-Sagle Land Exchange “may impact individual Sensitive plant species or habitat, but will not likely contribute to a trend toward federal listing or loss of viability to the population of the species” (project file).

The proposed Hope-Sagle Land Exchange would result in “no effect” to water howellia or Spalding’s catchfly because the parcels planned for conveyance contain no habitat for these Threatened species (project file).

This alternative would allow for increased connectivity and reduced fragmentation of NFS lands on the IPNF. There are no reasonably foreseeable Forest Service-planned activities on the acquired non-federal parcel that would have an effect on rare plants and their habitats.

Past activities in the analysis area including fire, road construction, and timber harvests have likely affected populations and habitat of rare plants. While timber harvest and road construction on conveyed federal parcels would result in landscape habitat fragmentation, the conveyed federal parcels have generally poor or marginal habitat quality for rare plants. However, the conveyed federal parcels are currently isolated from other NFS lands and do not greatly contribute to connectivity across the landscape.

**Consistency with Forest Plan and Other Regulations**

Both alternatives are consistent with the Forest Plan to manage the habitat of species listed under the Endangered Species Act (USDA Forest Service 1987, Forest Plan, p. II-6). Therefore, these actions would be consistent with the National Forest Management Act requirements to provide for the diversity of plant and animal communities across the Forest.

**Commercial Timber**

Table 4 discloses federal and non-federal sawtimber summary cruise information. The cruise design of the proposed Hope Sagle land exchange was completed using Region One and Stimson Lumber Company cruising standards (project record). Check cruising was completed in an unbiased manner during the summer and fall of 2008. Check cruising was a joint effort between the IPNF and Stimson Lumber Company. The cruise standards and timber volumes displayed in Table 4 below are acceptable to the IPNF and Stimson Lumber Company.

<table>
<thead>
<tr>
<th>Proposed Exchange</th>
<th>Federal parcels to convey</th>
<th>Non-federal parcel to acquire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total acres</td>
<td>1,821</td>
<td>922</td>
</tr>
<tr>
<td>Cruised Forested acres+</td>
<td>1,701</td>
<td>885.3</td>
</tr>
<tr>
<td>Non Forest or Total Harvested Removal acres</td>
<td>120</td>
<td>40</td>
</tr>
<tr>
<td>Total adjusted volume (MBF)</td>
<td>268</td>
<td>108</td>
</tr>
</tbody>
</table>

* Acres are based on net acres

*Volume figures are total net harvestable volume.

On non-federal parcels, sawlog volume is represented primarily in Douglas-fir and grand fir trees with western red cedar and western hemlock being the next most abundant tree species.

On federal parcels, sawlog volume is represented primarily in Douglas-fir with grand fir, ponderosa pine, western red cedar, and western larch having fairly equal volume (highest %
volume in this order). The remaining species volumes are less than 1% of the 267.8 MBF to convey.

Water Quality

Regulatory Framework
The principle regulatory direction applicable to the management of water resources on the Idaho Panhandle National Forests (IPNF) include:

- Idaho Panhandle National Forests Forest Plan (1987)
- Inland Native Fish Strategy (INFS) Forest Plan Amendment
- Clean Water Act and Idaho State Water Quality Standards
- National Forest Management Act
- Rules Pertaining to the Idaho Forest Practices Act (Title 38, Chapter 13, Idaho code, 2000)
- Executive Orders 11988, 11990 (Floodplain Management, Protection of Wetlands)
- The State of Idaho Water Quality Law (§39-3601 et. seq.) and Water Quality Standards (IDAPA, 58.01.02) designed to protect beneficial uses

Analysis Methods
This land exchange proposes to convey federal lands located in Spirit Creek (tributary to Spirit Lake), Bayview Creek (tributary to Lake Pend Oreille), Cocolalla and Careywood Creeks (tributaries to Cocolalla Lake), and Sanborn Creek (tributary to Priest River). The non-federal land to acquire is located in the Spring Creek drainage (tributary to Lightning Creek) north of Clark Fork, Idaho. Wetland surveys and field review of site conditions for this project were conducted as well as review of aerial photographs, and district personnel on site field reviews (project file).

The proposed exchange and No Action alternatives were used to identify risks to streams and riverine and palustrine wetland environments. The alternatives were also qualitatively evaluated in relation to existing Total Maximum Daily Loads (TMDL’s) and 303(d) listing for known pollutants.

None of the primary watersheds within the project area are listed as having designated beneficial uses under the Idaho Department of Environmental Quality’s IDAPA 58.01.02, “Water Quality Standards and Wastewater treatment requirements”. This refers to specific watersheds that support certain beneficial uses that are protected by the rules as established by Idaho DEQ. However, IDAPA 58.01.02, section 101.01, Nondesignated Surface Waters states; Surface waters not designated in sections 110 through 160 shall be designated according to section 39-3604, Idaho Code, taking into consideration the use of the surface water and such physical, geological, and chemical and biological measures as may affect the surface water. Prior to designation, undesignated waters shall be protected for beneficial uses, which includes all recreational use in and on the water and the protection and propagation of fish, shellfish, and wildlife, wherever attainable; and section 101.01.a; because the department presumes most waters in the state will support cold water aquatic life and primary or secondary contact recreation beneficial uses, the Department will apply cold water aquatic life and primary or secondary contact recreation criteria to undesignated waters unless Sections 101.01b and 101.01.c. are followed. Under Administrative Policy, Section 050., 01.02.a.; Protection of Waters of the State, states, wherever attainable, surface waters of the state shall be protected for beneficial uses which for surface
waters includes all recreational use in and on the waters surface and the preservation and propagation of desirable species of aquatic life, and b.; in all cases, existing beneficial uses of the waters of the state will be protected.

The 2008 Idaho DEQ Integrated Report, Section 3 lists unassessed waters, those for which beneficial uses have not been determined. “Section 3 lists waters for which there are no data that indicate beneficial uses are impaired, but there are also not enough data to determine that standards have been met. Spirit Creek falls under this designation.

Water Quality Limited Segments
Cocolalla Creek, source to Cocolalla Lake and Cocolalla Lake to mouth, and Lower Priest River, Upper West Branch of Priest River to mouth, are included in Idaho DEQ’s 2008 integrated Report as impaired waters. The pollutants of concern for both listings are silt and sedimentation and habitat bioassessments were listed as concerning factors.

Total Maximum Daily Loads
Water bodies with approved TMDL’s within or adjacent to the project area are Cocolalla Creek, source to mouth, Cocolalla Lake, and Lower Priest River from the Upper West Branch of Priest River to the mouth.

Existing Condition
The geographic setting is Bonner County, Idaho where annual precipitation ranges from 30-60 inches. Approximately 50% of the precipitation occurs as snow. Some of the project area at elevations between 2,500 to 4,000 feet may be susceptible to climatically driven winter rain-on-snow events that cause the largest peak flows on record (MacDonald and Hoffman, 1995, p.95). Federal parcels F-1, F-3, F-4, F-7, F-8, F-9, F-10, and F-11 do not contain aquatic resources or wetland habitat (project file). Field and aerial photo information pertaining to each federal parcel can be found in the project file.

The federal parcels were chosen due to their limited extent of possessing aquatic features and proximity and connectedness to sensitive watersheds or TMDL limited stream segments.

Federal Parcel Watersheds
Lower Priest River – Sanborn Creek is a tributary to Lower Priest River. The source of Sanborn Creek begins in federal parcel F-10 on Grouse Mountain. Ownership in Sanborn Creek is mostly private but Federal and State parcels do exist. No Forest Service hydrologic records on Sanborn Creek exist due to the small percentage of unmanaged federal land, about 1/4 section, within the watershed.

Lower Priest River was determined to not fully support assigned beneficial uses because of the pollutant sediment (Project File – Draft Integrated Report 2008). The TMDL Plan was approved 6/23/2003.

Cocolalla Creek – The Cocolalla Creek watershed surrounds mostly private land but the headwaters begin in a mix of private, State of Idaho lands, and federal land parcels. Federal parcels F-1, F-3, F-4, and F-11 all contribute drainage to Cocolalla Creek. These federal parcels are scattered across the watershed and total 326 acres out of the entire 48,577acre watershed. Federal and State lands are managed mostly for timber production and private land has experienced a mix of timber harvest and land development for agricultural purposes and rural
home sites. Hydrologic issues impacting Cocolalla Creek are road construction adding to drainage density, compacted ground reducing surface water infiltration, and temperature increases from reduced riparian shade providing vegetation. Present sediment load sources to Upper and Lower Cocolalla Creek as identified in the TMDL include silviculture, agriculture and grazing, roads, and residential development (urban/rural interface). Most of the land is under private ownership and a significant portion has been selectively logged (IDEQ, 2001). Land ownership includes US Forest Service, US Bureau of Land Management (BLM), IDL, corporate, and private ownership. Pastures and stream zones are assumed to be generally in good condition, however, many of the channels have been physically altered or straightened. Roads are a source of sediment because drainage facilities and other sediment control measures have not been installed in many areas (IDEQ, 2001). Ordinances and enforcement weakly regulate the construction and development of residential sites with minimal planning and implementation of erosion and sedimentation control and storm water management plans for new construction.

Cocolalla Creek was determined to not fully support assigned beneficial uses because of the pollutant sediment (Project File – Draft Integrated Report 2008). The TMDL Plan was approved 4/02/2001.

**Bayview Creek** – Federal parcel F-5 lies within the watershed of Bayview Creek where several tributaries come together and form a second order channel. Within federal parcel F-5 Bayview Creek is a moderately steep channel with a well-defined floodplain. South of parcel F-5 it transitions to a steep, highly entrenched stream flowing through a deep inner gorge. Stream shading from well-established riparian vegetation and mature trees through this section completely shelters the channel from solar radiance. Roads and culverts encroach on the floodplain in places but not to the extent that hydrologic function is substantially altered. Federal and private lands within this watershed are managed mostly for timber production where private land has experienced a mix of timber harvest and land development for rural home sites.

Bayview Creek is not listed under the Idaho DEQ IDAPA 58.01.02, for beneficial uses. Bayview Creek is also not listed on Idaho DEQ’s 303d list for impaired streams.

**Spirit Creek** – The Spirit Creek watershed encompasses federal parcels F-2, F-7, and F-9. These federal parcels are scattered across the watershed totaling 866.39 acres. Low-lying wetland areas are common in this watershed where groundwater is encountered and where impermeable layers create a higher water-table. Drainage in much of the watershed is ephemeral. Land ownership is a patchwork of Federal, State of Idaho, and private. State of Idaho land is managed mostly for timber production and private land has experienced a mix of timber harvest and land development for rural home sites. The federal land in this watershed has not been harvested since the mid 1990s.

Spirit Creek is not listed under the Idaho DEQ IDAPA 58.01.02, for beneficial uses. Spirit Creek is also not listed on Idaho DEQ’s 303d list for impaired streams.

**Federal Parcels with water features**

**Parcel F-2**

This federal parcel contains steeply dissected drainages that emanate from benchland features and flow in a southeasterly direction. The drainages appear to be intermittent or ephemeral. The geomorphology of the area results in stream flows submerging into the sub terrain several miles from this federal parcel. There is no evidence of stream channels on flat ground below the
headwater breaklands. The south and west aspects are drier and less heavily timbered. The flat terrain is well forested. Field reviews indicate some water in the rectangular parcel in the drainage on the west end (project file).

Parcel F-5
Federal parcel F-5 contains a portion of Bayview Creek, which is a second order stream as it flows through National Forest land. Forest road 2634A is adjacent to the creek through the parcel. Numerous roads access timber units. Bayview Creek appears to be protected by a good canopy cover and intact riparian vegetation despite the location of the road. There may be other wet tributary headwaters in the parcel. The topography is hilly with several basin source areas that could contain headwater streams or wet areas (project file). The characteristics of the stream channel in Bayview Creek in the northern portion of parcel F-5 are more moderate. The stream channel is moderately contained by the valley sideslopes and a gradual valley slope influences a wider dispersion of flood flows across a wider portion of the valley bottom. Road 2649 follows the valley and in places the road encroaches on the floodplain of Bayview Creek. Any negative influences from the road or the stream being in close proximity are not apparent in aerial photographs of the parcel. Field surveys of Bayview Creek (project file) confirm that no flood damage to the road has occurred and the flood plain occurs to be functioning under a natural range of variability. Bayview Creek is not a flashy system and above average discharge normally would not present an elevated risk to the road.

Non-Federal Parcel Watershed
Spring Creek – The non-federal parcel is located north west of the town of Clark Fork, Idaho. Spring Creek encompasses low-lying foothills west of the Hope Fault and the steep front to the Cabinet Mountains where primary tributaries drain the higher elevations up to 6,000 feet. This non-federal parcel occupies the lower elevations of Spring Creek and includes some higher elevations of Becker Draw, a tributary. The steep primary tributaries are well confined within steep valley walls and flow over numerous bedrock outcroppings. Riparian shading from mature timber is moderate to high. The stream gradient on the main channel of Spring Creek is decreased, thus influencing a wider, more sinuous channel that possesses good riparian and wetland floodplain qualities. Timber management has occurred and reduced the mature forest canopy in much of the non-federal parcel. Enough riparian forest structure is still intact to aid in current stream shading and future reforestation projects.

Spring Creek is not identified as a 303(d) listed water body in the Idaho DEQ’s 2008 Draft Integrated Report, nor included on the list of impaired water bodies. Spring Creek flows into Lightning Creek which is listed as impaired for temperature and sediment and is included in the Draft Lower Clark Fork Subbasin Assessment and TMDL (Idaho DEQ, 2007).

Environmental Consequences
Methodology
The potential effects to water resources, in terms of the change in federal ownership as it relates to effects to TMDL streams and the net new stream crossings as related to potential for increase in sediment yield, will be discussed in qualitative terms given Stimson’s proposed management plans.
Direct and Indirect Effects of Alternative 1

In the No Action alternative there would be no exchange of land parcels. According to Stimson’s management plans (project file), timber harvest would occur on their parcel over a two year period, no road building is planned. Idaho Forest Practices Act stream protection rules, timber harvesting guidelines, and road construction and maintenance regulations would adequately mitigate aquatic resource impacts. As such, there would be no effect to the Spring Creek TMDL or any increase in sediment as related to timber harvest. The Forest Service currently has no plans to conduct any management activities on any of the federal parcels; these lands would have no effect on TMDL streams or sediment production.

Cumulative Effects of Alternative 1

Under the No Action Alternative, mixed ownership would persist at the existing proportion in the various watersheds. Disparity between the land management laws and regulations governing the various land owners would continue to complicate the effort to effectively manage land in a way that best meets independent land management goals and objectives.

Direct and Indirect Effects of Alternative 2

Under this alternative, Stimson would manage those federal parcels conveyed to them under the rules of the Idaho Forest Practices Act, Title 38, Chapter 13, of the Idaho Code, and would be bound to follow the regulations pertaining to stream protection. Table 5 shows the five year road construction plans and the expected number of culvert installations at stream crossings, if all parcels are included in the exchange. As discussed in Chapter 1, it is not expected that all parcels will be included in this land exchange and every attempt will be made to reach equal value for both parties using the least amount of federal parcels included in this proposal.

<table>
<thead>
<tr>
<th>Watershed</th>
<th>New Construction Miles</th>
<th>Number of New Stream Crossings (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spirit Creek</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>Cocolalla Creek</td>
<td>3.25</td>
<td>1</td>
</tr>
<tr>
<td>Bayview Creek</td>
<td>2.0</td>
<td>3</td>
</tr>
<tr>
<td>Lower Priest River</td>
<td>1.6</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11.35</td>
<td>7</td>
</tr>
</tbody>
</table>

(*)All stream crossing would be on tributaries within the watershed

The proposed exchange could result in parcel F-5 moving from federal to non-federal ownership. The change in ownership of this parcel containing Bayview Creek would likely result in less protection for the aquatic habitat in the segment of Bayview Creek. This change in protection would not be expected to have a substantial negative impact on water resources because of the minimum standards that either entity would be required to follow regarding stream habitat protection, although streams under federal ownership typically receive a higher degree of protection. The proposed Stimson management plans for this parcel could increase solar radiance to Bayview Creek and possibly increase summer maximum stream temperatures due to timber harvest (Belt and O’ Laughlin, 1992). Line skidding units proposed along Bayview Creek would reduce the basal area of timber by 45% and subsequently reduce the thermal protection provided by the forest canopy. Approximately 2 miles of road would be constructed by 2011. Sediment addition to Bayview Creek could increase due to ground disturbance from logging activity and road construction. New road construction would be on moderate terrain and stream crossings...
would bisect gentle draws. This increase in sedimentation is not expected to be a persistent source if BMP’s for road construction and maintenance are strictly adhered to. Bayview Creek is not listed under the Idaho DEQ IDAPA 58.01.02, for beneficial uses. Bayview Creek is also not listed on Idaho DEQ’s 303d list for impaired streams.

Stimson’s proposed management in federal parcel F-2 could result in a short term increase in sediment addition to the stream in the western portion of this parcel due to line skidding of logs within the inner gorge of the stream. Stimson Lumber Company proposed logging within this parcel (see project file for details) shows 4.5 miles of road construction and .2 miles of road reconstruction in 2011. The logging access road adjacent to the riverine wetland within this parcel would run along the top of the inner gorge of the drainage and one stream crossing would be constructed. The logging road would access tractor skidding units on the flatter ground and line skidding units on the steeper ground within the stream corridor’s inner gorge. The proposed harvest would likely result in an increase of solar radiation to the stream and an associated rise in summer maximum stream temperatures. This could influence summer low flow conditions. Forest canopy removal could increase surface runoff entering the stream and possibly more accumulation of winter snowpack. Changes in hydrology could occur as a result of Stimson’s harvest prescriptions but it is not anticipated that these changes would be outside the natural range of variability that this fire prone forest type has experienced in the past. Road construction at stream crossings could be a source of a short term increase in sediment unless road construction and maintenance BMP’s are strictly adhered to. This drainage is not connected to a TMDL or water quality limited recognized stream.

Proposed timber harvest on all other federal parcels (F-1, F-3, F-4, F-7, F-8, F-9, F-10, and F-11) by Stimson is not expected to result in an increase in sediment to the watersheds due to the location of the parcels, the lack of stream crossings, and the lack of aquatic resources in these parcels. Given the limited sediment production, the use of best management practices, and compliance with the Idaho Forest Practices Act the TMDL segments associated with these units are not expected to experience negative effects associated with timber harvest and road construction.

The proposed action would result in the acquisition of the non-federal Hope parcel, containing Spring Creek, and conversion to federal ownership. Currently there are no plans for management within this parcel. However, the change in ownership of Spring Creek, containing supporting aquatic resources would likely result in more protection for the habitat of Spring Creek that would become National Forest lands.

**Cumulative Effects associated with Alternative 2**

Since the implementation of this alternative is not expected to have an effect on TMDL streams, and new stream crossing are not expected to generate a measurable increase in sediment yield, there is no need to consider the impacts of the project from a cumulative effects standpoint because this alternative is not expected be an additional impact on water quality.

**Consistency with Forest Plan and Other Regulations**

Management activities would comply with state water quality standards. This would be accomplished through the use of the Best Management Practices. The outcome of these BMP’s would be monitored to determine their effectiveness.

The application of appropriate conservation practices would ensure that the quality of individual water bodies would not be significantly affected by sediment production.
Wetlands and Floodplains

The objective of this section is to disclose wetland and floodplain acreage acquired and conveyed for each alternative and to determine compliance with Executive Orders. Delineation and analysis of floodplains (per EO 11988) are required to determine flood hazards and floodplain function. A determination of flood risks and their disclosure (if any) are required by the executive orders. There must be a determination if, and to what extent, each alternative considered may incur further risk. Wetlands (per EO 11990) must be identified and analyzed to determine their function and resource values, including the potential for gain or loss of wetland area or value as a result of the alternatives considered within the exchange decision.

The analysis area for wetlands and floodplains is each federal and non-federal parcel. The analysis included a review of existing floodplain-wetland determination (Archer et al. 2004), aerial photograph review, and wetland and floodplain acre determinations based on sampling and professional knowledge.

Methodology

Wetland field surveys, delineations, and classifications to determine their function and resource values, were conducted during the summer of 2004 and 2008. In addition, review of aerial photographs, and accompanying field reviews to identify stream courses or wetland landscape features such as depressional areas or changes in vegetation were also conducted (project file).

In addition to landscape features any critical facilities or developments were located to identify any risk associated with flooding (Archer et al. 2004).

Evaluation of Hydrologic Characteristics

Federal parcels to be conveyed are small, ½ section and smaller, located in a relatively dry portion of Bonner County generally described as the scattered lands, named so for the patchwork of scattered federally owned lands. Aerial photo analysis and the field reviews revealed that federal parcels F-2 and F-5 contained riverine wetland habitat that fit the evaluative criteria. The following is a description of these two parcels.

Federal Parcel F-2

The geomorphology of the southwest portion of Bonner County, where this parcel is located, resulted in permeable valley bottom soils that influence intermittent stream channels that go dry in the summer months. Stream channels are defined in steeper terrain but can become ephemeral and disappear in more gentle terrain. Because of this some parcels of land do not contain wetlands or even developed drainage areas. This portion of the valley is underlain by the Spokane/Rathdrum Prairie Aquifer.

The northwestern portion of parcel F-2 contains a small perennial riverine system. This segment of stream amounts to .246 miles of stream (see Table 6 and associated floodplain habitat). Field surveys indicated that soils were saturated and the site was inundated with 2 inches of standing water. The overall acreage of this wetland equaled .21 acres (see Table 6). In addition, a small seep less than an acre in size was found in the southwestern portion of the parcel (Archer et al. 2004, p.7-8). The size of the watershed above this point is less than 1 square mile, and at this point is a second order stream. Regional curves estimate the flow at bankfull stage to be less than 10 cubic feet per second (cfs) and the width of the stream would be only a couple of feet. The floodplain is not much wider than the stream channel itself due to steep valley confinement. Therefore, the floodplain is a narrow strip on either side of the stream channel. A 100 year flood
event could extend up to 2-3 times the width of the stream channel. With no floodplain
development likely in this section of the parcel due to steep terrain, encroaching floodwaters
would not affect much damage aside from changes to the channel.

### Table 6- Summary of Wetland and Floodplains

<table>
<thead>
<tr>
<th>Parcel Number</th>
<th>System</th>
<th>Acres</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-federal Wetland/Floodplain Acquired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-1 through 4</td>
<td>Riverine/Palustrine</td>
<td>10.6</td>
<td>2.089</td>
</tr>
<tr>
<td>Total Acquired</td>
<td></td>
<td>10.6</td>
<td>2.089</td>
</tr>
<tr>
<td></td>
<td>Federal Wetland/Floodplain Disposed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-2</td>
<td>Riverine</td>
<td>.21</td>
<td>.246</td>
</tr>
<tr>
<td>F-5</td>
<td>Riverine</td>
<td>8.34</td>
<td>1.094</td>
</tr>
<tr>
<td>Total Disposed</td>
<td></td>
<td>8.55</td>
<td>1.34</td>
</tr>
</tbody>
</table>

**Federal Parcel F-5**

In the southern portion of Bonner County near Lake Pend Oreille the terrain is more mountainous
and valleys are generally narrower due to greater confinement and relief. Stream channels are
more continuous with developed channels and floodplains. Stream flow is perennial in most of
the larger streams.

Federal parcel F-5 had many riverine wetland areas associated with Bayview Creek. Bayview
Creek encompasses the east portion of the parcel which is a deep ravine. The complex of
wetlands associated with Bayview Creek encompasses 5.54 acres (Archer et al. 2004, p. 9).
Several wetlands flow into this ravine. The remaining riverine wetlands in the parcel amount to
an additional 2.8 acres (see Table 6).

Regional curves developed for the Coeur d’Alene drainage estimate the bankful flow of Bayview
Creek to be 10 cfs or less at a point of 1 square mile of watershed size (project file). This would
be the approximate location of Wetland 1 (Archer et al. 2004). The data form for the riverine
wetland (Archer et al. 2004) indicates that the slowly flowing second order stream was 5 feet
wide. The flood prone area would be wider, possibly 20 feet, but would be contained in the
relatively narrow confines of the canyon. Pictures of the site show a very wet, well-vegetated
area that indicates perennial wetness and low energy associated with flooding events. Normal
peak flows occur from snowmelt runoff in May and June, while the larger peak flows result from
heavy rainfall on the existing winter snowpack. These events, known as rain-on-snow events can
produce high volumes of water that send stream flows well over floodstage very rapidly. As
evidenced by the abundant small woody debris in the channel and well vegetated stream banks
and riparian zone (project file), damage from floods is infrequent. None of the watersheds within
this parcel are listed as having designated beneficial uses under the Idaho Department of
Environmental Quality’s IDAPA 58.01.02, “Water Quality Standards and Wastewater treatment
requirements”. This refers to specific watersheds that support certain beneficial uses that are
protected by the rules as established by Idaho DEQ.

**Non-federal Parcel**

Wetlands assessment surveys were performed on the non-federal parcel in the Spring Creek
watershed. Four separate riverine systems were identified along with two palustrine wetlands
totaling 10.6 acres; see Table 5, (Archer et al. 2004, p.17). The parcel contained predominantly
riverine wetlands associated with the steep primary and secondary drainages that flow from the higher elevations off the west aspect of the Cabinet Mountain front. Because the valley bottom receives multiple streams that drain an area of heavy precipitation and deep snowpack the wetland system is more established. Cedar associated forest types are well-established as a result of ample and persistent runoff. It was in a cedar forest type that one palustrine wetland was noted, 04KS016 (Archer et al. 2004). The primary watersheds can be flashy and move large amounts of material during heavy precipitation and spring snowmelt periods but are largely stable due to steep valley confinement and bedrock control. Wetland associated plant communities can exist on alluvial fan features at the transition in gradient where alluvial bedload is deposited and permeable deposits allow groundwater to exist close to the surface.

In the SE corner of Section 15, where Spring Creek exits the parcel, the size of the watershed at this point is approximately 6 square miles. The average annual flow of Spring Creek is 23 cubic feet/second (cfs) as it flows into Lightning Creek. Comparison with flood flow estimates for similar watersheds in the Lightning Creek drainage show that flows at the 100 year magnitude would be approximately 115cfs. Flows at this level would inundate floodplain features and activate normally dry channels higher on the floodplain. Development exists lower in the Spring Creek watershed. Property development encroaching on the floodplain can experience streambank erosion especially if the streambanks have been altered or stripped of protective riparian vegetation.

Floodplain Evaluation

Federal Parcel F-2
The floodplain in federal parcel F-2 is not much wider than the stream channel itself due to steep valley confinement. It is characterized as a narrow strip on either side of the stream channel. A 100 year flood event could extend up to 2-3 times the width of the stream channel. The geomorphology of the area results in stream flows submerging into the subterrain several miles from parcel F-2. With no development in this section of the parcel encroaching floodwaters would not influence damage to infrastructure aside from changes to the channel.

Federal Parcel F-5
The characteristics of the stream channel in Bayview Creek in the northern portion of federal parcel F-5 are moderate. The stream channel is moderately contained by the valley sideslopes and a gradual valley slope influences a wider dispersion of flood flows across a wider portion of the valley bottom. Forest Service road 2649 follows the valley and in places it encroaches on the floodplain of Bayview Creek. Any negative influences from the road or the stream being in close proximity are not apparent in aerial photographs of the parcel. A field review of Bayview Creek in 2008 confirmed that no flood damage to the road has occurred and the flood plain appears to be functioning under a natural range of variability. Bayview Creek is not a flashy system and flow volumes normally would not present an elevated risk to the road. There are no structures within the parcel or immediately downstream that would incur damage from flooding.

Non-federal Parcel
Due to the proximity of Spring Creek to steep headwater streams that receive heavy precipitation it can be prone to rapid fluctuations in discharge. Twenty five percent of the watershed is denoted as being prone to rain-on-snow events and the highest discharge of the water year can be associated with rain events in January. Riparian forest buffers are intact through most of the parcel to provide stream bank stability and retention of overland sediment transport. The
floodplain of Spring Creek is well-developed and allows dispersion of flood flows which reach an annual average discharge of 23cfs. A 100 year flood event would potentially alter sections of the stream but the intact components of the riparian zone would provide an adequate buffer toward extensive damage. The town of Clark Fork has a municipal water intake reservoir located less than one mile downstream of the eastern boundary where Spring Creek exits the parcel. Flood damage in the form of road fill failures or culvert failures could impact water quality and reduce the storage capacity of the reservoir. Maximum protection of water quality through use of riparian buffers, BMP’s for road maintenance, decommissioning of problem sections of road, and reforestation practices should be a priority for management in this parcel to assure protection of the municipal water source.

**Direct, Indirect and Cumulative Effects of Alternative 1**

This alternative would result in no change in wetlands and floodplains acreage on the IPNF therefore there would be no change to wetlands or floodplains.

**Direct, Indirect and Cumulative Effects of Alternative 2**

This alternative would result in an increase in wetlands and floodplains and be in compliance with Executive Orders 11990 and 11988.

**Findings**

There is a net gain to the United States of 10 delineated wetlands totaling 10.6 acres and 2.089 miles of riverine wetlands and associated floodplain habitat (see Table 5). The net loss to the United States amounts to 8.55 acres of delineated wetlands and 1.34 miles of riverine floodplain habitat. No hazards to life and property as a result of flooding are known or expected to exist in the wetland or floodplain areas involved.

Federal parcel F-2 and F-5, and all parcels included in this proposal, are consistent with Executive Order 11988 which requires that a determination of flood risks be disclosed.

It is known that quality wetland habitat, both riparian and palustrine exist within the non-federal parcel. The benefit to the government of acquiring this land would be the ability to manage contiguous acres of wetland habitat that adjoins a large parcel of existing National Forest System land.

**Consistency with Forest Plan and Other Regulations**

Management activities would comply with state water quality standards. This would be accomplished through the use of the Best Management Practices. The outcome of these BMP’s would be monitored to determine their effectiveness.

The application of appropriate conservation practices would ensure that the quality of individual water bodies would not be significantly affected by sediment production.
Recreation

Regulatory Framework
A variety of agency policies and regulations guide the management of recreation for the Idaho Panhandle National Forests. Forest Service manuals and handbooks provide agency-specific direction for recreation (FSM 2300).

The Idaho Panhandle National Forests (IPNF) Forest Plan goals (FP II-1-2), recreation objectives and standards (FP II-3 and 24) indicate, in part, that the IPNF will continue to provide a share of outdoor recreation needs in relation to other public and private entities. The Forest will also provide for a variety of dispersed recreation opportunities.

The IPNF Forest Plan provides management area (MA) direction for those federal parcels included in the proposed land exchange, with guidance for recreation management. The federal parcels included in the proposed land exchange are comprised of MAs 1, 4, and 9, the non-federal parcel would be considered MA10 north of Spring Creek road and MA4 south of Spring Creek road (see Recreation project file for ROS map). The following describes the management area direction as it relates to recreation:

Management Area 1
• manage recreation for roaded natural and roaded modified (*) ROS classes (recreation opportunity spectrum; see text box)
• maintain a diversity of recreation opportunities

Management Area 4
• manage primarily for roaded natural and roaded modified(*) ROS classes
• motorized use is generally restricted to designated routes
• within critical habitat components motorized recreation use may be restricted to provide needed wildlife security

Management Area 9
• manage recreation for roaded modified (*) or semi-primitive ROS recreation experience

Note (*): The original Forest Plan allocations for ROS did not include roaded modified. This classification was developed in order to categorize a recreational setting that did not previously exist.

Recreation Opportunity Spectrum Definitions

<table>
<thead>
<tr>
<th>Recreation Opportunity Spectrum Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recreation opportunity spectrum (ROS) is a system of classifying recreation settings and opportunities on National Forest System lands. The Forest Plan established the ROS classes The following ROS classes apply to both the Federal and non-federal parcels.</td>
</tr>
<tr>
<td><strong>Rural</strong> = the sights and sounds of human activity are readily evident, though less pronounced and less concentrated than in the urban class. While the characteristic landscape is often dominated by human caused geometric patterns, there is also a dominant sense of open, green-space.</td>
</tr>
<tr>
<td><strong>Roaded Natural</strong> = All forms of access and travel modes may occur. Access to and through the area is typically by passenger vehicle, although motorized use may be restricted to provide for resource protection, user safety, or to provide a diversity of recreation opportunity.</td>
</tr>
<tr>
<td><strong>Roaded Modified</strong> = Vegetative and landform alterations typically dominate the landscape. There is little on-site control of users except for gated roads. There is moderate evidence of users on roads. There is opportunity to get away from others but with easy access. Recreation users will likely encounter timber management activities.</td>
</tr>
<tr>
<td><strong>Semi-primitive Motorized</strong> = characterized by predominately natural or natural appearing landscapes. These areas give a strong feeling of remoteness from more heavily used or developed areas. Road systems may be in place, but are often...</td>
</tr>
</tbody>
</table>
Management Area 10

- provide a semi-primitive recreation experience
- manage existing roads to provide access for and dispersal of recreation users
- provide a variety of trail uses in areas designated semi-primitive
- no road construction within the MA except in those few cases where primitive roads may be built to improve the semi-primitive recreation experience.

Methodology for Analysis

The federal parcels are scattered over a large area of the Sandpoint Ranger District. The non-federal parcel proposed for acquisition is located northwest of Clark Fork, Idaho on the Sandpoint Ranger District. The analysis area is each individual parcels along with its access. The parcels will be evaluated in relation to recreation opportunities and experiences.

The Recreation Opportunity Spectrum (ROS) was reviewed to determine classification of the land parcels. The ROS setting indicators demonstrate access, remoteness, size, visual characteristics, site management, visitor management, social encounters and visitor impacts. ROS setting indicators have the potential to change with changes in land ownership. ROS settings for federal parcels to convey (see project file for map) include Roaded Natural, Roaded Modified, Semi Primitive -Motorized and Rural (see above text box for description). ROS settings for non-federal parcels were assumed using designations for adjacent National Forest lands which is Rural ROS settings used in the analysis include (IPNF Forest Plan FEIS Glossary, 1987, ROS User Guide, FS).

Since we do not have specific data on recreational use in the analysis area, an overview of recreational use was developed using firsthand knowledge from Forest Service recreational personnel and discussions with adjacent landowners. The discussions of direct, indirect, and cumulative effects for recreation will be qualitative in nature with emphasis on anticipated changes in recreation opportunities and uses.

An important factor to consider when analyzing the impacts of the proposed land exchange on recreation is the ability to provide diverse recreational opportunities. The federal lands proposed to exchange are geographically removed from the main body of National Forest System lands, but in close proximity to other Stimson lands, and have limited access opportunities to the general public (five of the ten parcels have public access). The non-federal land proposed for acquisition is adjacent to an existing large block of National Forest System land that can be managed, along with the existing National Forest lands, to more effectively provide diverse recreational opportunities to a variety of users.

Adjacent Lands and Other Ownerships

All of the federal parcels are bordered by land owned by private individuals, the State of Idaho or timber companies. Lands owned by timber companies, are typically managed for the primary purpose of resource extraction (i.e., timber) where access is generally limited to foot travel. Since these timber lands are managed for this purpose they generally provide limited recreational opportunities to the general public. Hunting, hiking, and berry picking are uses that could occur on these lands.

There are also private residences adjacent to the federal parcels. Adjacent private land continues to be developed over time. The private land development surrounding federal land limits access
to many of the scattered parcels to those properties adjoining federal land. Thereby limiting use on these scattered parcels to adjacent landowners.

**Existing Condition**

**Federal Parcels**

The federal land being considered for this land exchange is located on 10 parcels spread out across 3 townships on the Sandpoint Ranger District. Road access is limited to five of the ten parcels included in this proposed exchange. Not all ten federal parcels would be exchanged because the number of acres exchanged is expected to be roughly equal to the approximately 922 acres that would become federal land. All of the federal parcels associated with this proposed land exchange are surrounded by private land and are isolated from large blocks of contiguous National Forest lands. As such, they represent limited recreational opportunities to the general public. Recreational use on the federal parcels includes hunting, firewood cutting, huckleberry picking and Christmas tree cutting. Use is generally low due to the limited access, generally small acreages, and can be difficult to locate on the ground given their scattered nature. All the parcels are surrounded by private property or private timberland. All the federal parcels are equal in a sense that they consist of small acreage, are scattered around the district, have little or no access, have no particular value for recreation, and are difficult to manage. Illegal dumping is evident on some of the parcels.

Below is a general description of each federal parcel along with the ROS setting.

**Parcel F-1** - This parcel is adjacent to private land managed by Stimson Lumber Company. There is no access to this parcel and limited recreational use. The ROS setting is Semi-Primitive Motorized. This parcel is designated primarily as MA1 with a small portion of MA9 located in a rocky area of the parcel.

**Parcel F-2** - This parcel is adjacent to private land managed by Stimson Lumber Company. There is no access to this parcel and limited recreational use. The ROS setting is Roaded Modified. This parcel is designated primarily as MA1.

**Parcel F-3** – This parcel is adjacent to private land managed by Stimson Lumber Company. There is no access to this parcel and limited recreational use. The ROS setting is Semi-Primitive Motorized. This parcel is designated as MA1.

**Parcel F-4** – This parcel is adjacent to private land managed by Stimson Lumber Company. There is no public access to this parcel. Recreation use is generally limited to the eastern portion of this parcel where a small portion of the Bayview-Blacktail Trail 230 is located. Trail 230 is motorized with moderate use, mostly from motorbike riders and hikers. The ROS setting is Semi-Primitive Motorized. This parcel is designated as MA1 and MA9.

**Parcel F-5** – This parcel is adjacent to Stimson Lumber Company to the north and east. The northwestern corner borders State of Idaho lands, the northeastern corner and southern boundary border National Forests lands. Access to this parcel is by Forest road 2649 and 2634 which is gated. Recreational use on this parcel is limited. The ROS setting is Roaded Modified. This parcel is designated as MA4.

**Parcels F-7, F-8 and F-9** - These parcels are located in the “scattered” lands where access is along either county road or state highways. They are all surrounded by private land. Recreational use in these parcels is likely limited to firewood cutting, Christmas tree cutting, and occasional
use by neighboring private land individuals. The ROS setting is Rural. These parcels are designated as MA4.

**Parcel F-10** – This parcel is adjacent to private land managed by Stimson Lumber Company. A small scattered parcel of Bureau of Land Management (BLM) land borders the parcel to the north. There is no public access to this parcel. Recreational use is limited and is likely in the form of hunting. The ROS setting is Roaded Modified. This parcel is designated as MA1.

**Parcel F-11** – This parcel borders Idaho State lands to the north, BLM land in the south east corner and Stimson and private on all other borders. There is no access to this parcel and as such has limited recreational use by the general public. Those accessing the parcel are likely adjacent landowners for hunting and general hiking purposes. The ROS setting is Rural. This parcel is designated as MA4.

**Non-federal Parcel**

These parcels are located along the lower slopes of the Cabinet Mountains near the city of Clark Fork. The north and north eastern portions of the parcel border contiguous National Forest lands. The eastern, western and southern boundaries of the parcel borders privately owned lands that are largely developed as private residences.

Public access to these parcels is available along the West Spring Creek road (County road 772). Open access provides a variety of recreational uses on this parcel including hunting, hiking, berry picking and limited all terrain vehicle (ATV) and motorbike use. The ROS setting for these parcels would be Rural.

These parcels provide a key link for recreation access. It could provide access via a trailhead and parking area to Beetop-Roundtop Trail 120. Trail 120 is a popular mainline, non-motorized trail. For over 25 years, trail access from Clark Fork has been restricted because the Forest Service does not have access across private property at the trailhead. Trail visitors who have endured between 12 and 20 miles of trail are often forced to “skirt” around the private property to leave the trail. Currently, there is no parking facility for this trail.

**Roadless Area**

The Beetop Inventoried Roadless Area #130 (IRA) is adjacent to the non-federal parcel to the north and east. The southern border of the Beetop IRA is adjacent to private land. This IRA is comprised of approximately 13,016 acres and is primarily designated as MA 10 in the Forest Plan. There is limited access to the IRA from the north from the Porcupine Lake trail (#642), the Round Top Mountain trail (#489), the BeeTop Mountain trails (#63 and #120), Cougar Peak trail (#1830), and the Strong Creek trail (#444).

The Beetop IRA, adjacent to the non-federal parcel, is mostly “face country,” encompassing relatively warm and dry southwestern slopes that provide critical big game winter range. The lower portions of these lake faces are generally in private ownership and are being further developed. Over-night stays within this IRA are infrequent; most of the use is by hunters.

**Environmental Consequences**

**Direct, Indirect and Cumulative Effects of Alternative1**

This alternative would have no direct impacts to the ROS settings since no specific action would take place. Access and recreation opportunities would not change. There would be no change to
the ROS setting or the recreation environment. Since there would be no change to the ROS setting or recreation environment there would be no cumulative effects associated with this alternative.

Direct and Indirect Effects of Alternative 2

Under this alternative, there could be a change in recreational use and the ROS setting on federal lands. The degree of change would depend on which parcels are ultimately included in the exchange. As described earlier, half of the federal parcels currently do not have public access, one parcel has a trail, and all other parcels have access and very limited recreational use. Many of the parcels are small in size and isolated from larger blocks of National Forest lands. Stimson plans to build roads and harvest timber on those federal parcels conveyed to them. In some of these conveyed parcels, there would be a dramatic change in the forest composition, public access may be restricted and roads may be blocked off or gated, as ownership changes to private property. The low number of recreation visitors who hunt, gather firewood or cut Christmas trees on these parcels would be displaced to other National Forest lands on the Sandpoint Ranger District. The sights and sounds of road construction or timber harvesting would be closer and more frequent than it presently is. Trail right of way for trail 230 would be reserved to assure Forest Service trail protection.

The non-federal parcel acquired could provide a variety of recreational access in the future. This parcel would be designated as MA 10 above the West Spring Creek road and MA4 below this road. MA10 and MA4 goals are described above. There would be no change to the ROS setting.

Roadless Area

The non-federal parcel is adjacent to the Beetop roadless area. Under this alternative the roadless area acreage could increase 313 acres and go from 13,016 acres to 13,329 acres. The manageability of the roadless area could actually be improved by incorporating acreage to the north of West Spring Creek road into the roadless area. Thereby using a road as the boundary instead of what we currently have which is the National Forest boundary that cannot be discerned on the ground.

Cumulative Effects of Alternative 2

As noted in the discussion of the existing habitat conditions, although there are parcels under federal ownership that would be conveyed to Stimson that are currently used for recreation the use is considered minimal due to lack of access, land base continuity and size of parcels. The non-federal parcel acquired could provide an opportunity to access National Forest lands that were previously difficult to access. The change in recreational use under this alternative is not expected to have a cumulative effect due to the minimal recreational use on federal parcels being considered for exchange.

Under this alternative, the size of the Beetop roadless area could increase by 313 acres and provide easier management on the ground rather than an indiscernible property boundary. In conjunction with other activities occurring in the vicinity of all of the federal and non-federal parcels considered for exchange, such as continued private residential development and timber harvest on other private lands, this alternative would likely increase the ability of the non-federal parcel that would be acquired to support recreation needs.
Consistency with Forest Plan and Other Regulations
Both alternatives are consistent with the Forest Plan and will continue to provide a share of outdoor recreation needs in relation to other public and private entities. Both alternatives also provide for a variety of dispersed recreation opportunities.

Wildlife and Fisheries: Threatened, Endangered, Sensitive and Management Indicator Species (MIS)

Regulatory Framework
The principle regulatory direction applicable to the management of wildlife resources on the Idaho Panhandle National Forests (IPNF) include:

- The Endangered Species Act of 1973 (ESA), as amended
- Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA)
- National Forest Management Act of 1976 (NFMA)
- The Migratory Bird Treaty Act of 1918 (MBTA), as amended
- Idaho Panhandle National Forests Forest Plan (1987)
- Rules Pertaining to the Idaho Forest Practices Act (Title 38, Chapter 13, Idaho Code, 2000)
- Executive Order 12962 (Recreational Fishing)
- State of Idaho Governor’s Bull Trout Plan
- Clean Water Act and Idaho State Water Quality Standards
- Forest Service Manual (FSM) and Handbook (FSH) direction

The following is a summary of regulatory guidance and its relation to the management of wildlife species and habitats on the Idaho Panhandle National Forests.

The National Forest Management Act requires the Forest Service to “provide for a 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” (NFMA 1976 Sec. 6[g][3][B]). Additional guidance is found in Forest Service Manual direction that states: “identify and prescribe measures to prevent adverse modification or destruction of critical habitat and other habitats essential for the conservation of endangered, threatened and proposed species” (FSM 2670.31 [6]). The IPNF Forest Plan provides additional direction to “manage vertebrate wildlife habitat to maintain viable populations” of wildlife, “maintain high quality water to protect fisheries habitat” and “to contribute to the conservation and recovery of listed species”, in accordance with species recovery or management plans (USDA Forest Service 1987).

The ESA, as amended, requires the Forest Service to manage for recovery of threatened, endangered, and proposed species and the ecosystems upon which they depend. The direction requires the completion of a biological assessment to evaluate the potential effects of proposed actions on listed species or identified habitats and a determination as to the effects of those actions. The Forest is required to consult with the U.S. Fish and Wildlife Service if a proposed activity may affect the population or habitat of a listed species.

On February 11, 2009, the U.S. Fish and Wildlife Service issued a list of threatened and endangered species that may be present on the Idaho Panhandle National Forests within the evaluation area (USDI Fish and Wildlife Service 2009a). Endangered species are woodland caribou (Rangifer tarandus caribou), gray wolf (Canis lupus) and Kootenai River white sturgeon.
(Acipenser transmontanus). Threatened species include grizzly bear (Ursus arctos), Canada lynx (Lynx canadensis) and bull trout (Salvelinus confluentus). No critical habitat for wildlife species was designated on the IPNF at the time the list was issued. However, on March 27, 2009, the U.S. Fish and Wildlife Service designated critical habitat for Canada lynx, which includes a small portion on the IPNF (USDI Fish and Wildlife Service 2009b). In addition, effective May 4, 2009, the U.S. Fish and Wildlife Service removed the gray wolf from the endangered species list (USDI Fish and Wildlife Service 2009c) and it was added to the Region One Sensitive Species list. However, on August 5, 2010 the U.S. District Court in Montana ruled that the delisting of the wolf population in Montana and Idaho cannot be considered separately (e.g. along state boundaries) from wolves in Wyoming and as a result, relisted wolves in Idaho and Montana.

Sensitive Species

The Forest Service Manual also directs the Regional Forester to identify sensitive species for each National Forest where species viability may be a concern. The direction requires the Forest Service to manage the habitat of the species listed in the Regional Sensitive Species List (USDA Forest Service 2005) to prevent further declines in populations, which could lead to federal listing under the Endangered Species Act.

Management Indicator Species and Others

NFMA directs the Forest Service to manage wildlife and fish habitat for existing native and desired non-native species in the planning area (Idaho Panhandle National Forests). To facilitate the management of all wildlife species and their habitat, management indicator species (MIS) were identified in the Forest planning process. These species are used to evaluate or assess impacts, whose population changes are believed to indicate effects of land management activities on other species with similar habitat needs. MIS are also used to monitor effects of planned management activities on populations of socially or economically important wildlife and fish species.

Fisheries Management Direction

The Inland Native Fish Strategy (INFS 1995) amended certain Forest Plan direction regarding stream and fish habitat protection measures.


Executive Order 12962 (June 7, 1995) states objectives “to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities by: (h) evaluating the effects of federally funded, permitted, or authorized actions on aquatic systems and recreational fisheries and document those effects relative to the purpose of the order.”

The mission of the Governor’s Bull Trout Plan is to “…maintain and or restore complex interacting groups of bull trout populations throughout their native range in Idaho” (State of Idaho 1996). Through a process involving state and Federal agencies, interested groups and individuals (i.e., Basin Advisory Groups, Watershed Advisory Groups, Technical Advisory Teams, a “problem assessment” was prepared (Panhandle Bull Trout Technical Advisory Team; PBTTAT
and a conservation plan was developed (Resource Planning Unlimited 1999) for the Lake Pend Oreille key watershed.

**Analysis Methods**

**Introduction**

Species surveys were conducted for some species, where relevant and applicable, to determine presence. However, presence surveys do not necessarily determine absence of a species. Therefore, a more meaningful and creditable approach in conducting an analysis is to assume presence based on habitat attributes, using survey information to help validate suitability of habitats. In some cases, surveys can identify key habitats (e.g., breeding, spawning or nesting sites) that can be protected through design features.

An important concept in discussing habitat suitability for some species is the distinction between capable habitat and suitable habitat. Capable habitat refers to the inherent potential of a site to produce the necessary biotic and abiotic components to support a given species. Suitable habitat refers to habitat that is currently providing the necessary components to support a species. Therefore, habitat that is unsuitable is capable habitat that has the potential to develop into a suitable condition, but currently does not meet the habitat requirements for a species. Habitat that is not capable has no potential to develop into a suitable condition.

**Species Screen**

The Council on Environmental Quality (40 CFR 1502.2) directs that impacts be discussed in proportion to their significance. Some species require a detailed analysis to determine effects of an action on them. Other species may not be impacted or impacted at a level that does not increase risk to the species. Some species may be adequately protected by altering the project design. Generally, these species do not require a detailed discussion and analysis.

The appropriate methodology and level of analysis needed to determine potential effects are influenced by a number of variables including presence of a species or its habitat, the scope and nature of the activities associated with the proposed action and alternatives, and the risk to factors that could ultimately result in a meaningful adverse or favorable effect.

In preparation for this document, a review was conducted using a variety of information including scientific literature, resource inventories, and sighting records, to help screen and determine species relevancy to the project. The screening process included the following documents:

- U.S. Fish and Wildlife Service list of federally threatened and endangered species that may occur on the Idaho Panhandle National Forests (USDI Fish and Wildlife Service 2009)
- Region 1 Sensitive Species list (USDA Forest Service 2005)
- IPNF Management Indicator Species List (USDA Forest Service 1987)
- Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin (Quigley and Arbelbide 1997)
- Idaho Panhandle National Forest Land and Resource Management Plan
- Pend Oreille Basin Geographic Assessment (USDA Forest Service, unpublished report)
- Lake Pend Oreille Bull Trout Problem Assessment (PBTAT 1998)
- Conservation Assessments and Strategies for wildlife and fish species
Species Not Analyzed in Detail

A preliminary analysis was conducted for each potentially affected species and their habitat to determine the scope of analysis. The species listed in Table 7 would not likely be affected by the proposed activities because:

- they do not have suitable habitat,
- they are not expected to be in or near the project area,
- they would not be impacted,
- or impacts would be avoided or inconsequential given the project design.

For these reasons, these species were not analyzed in detail.

Table 7 - Wildlife and fish species not analyzed in detail

<table>
<thead>
<tr>
<th>Species</th>
<th>Rationale for Elimination from Detailed Analysis</th>
<th>Preferred Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threatened and Endangered Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada Lynx (<em>Lynx Canadensis</em>)</td>
<td>The project area is not within a designated Lynx Analysis Unit (LAU), is not within designated critical habitat, does not contain the appropriate habitat for lynx and is not within areas considered to be linkage corridors between lynx habitat.</td>
<td>Higher elevation lodgepole pine and spruce/fir forests with adequate prey base of snowshoe hares, its primary food.</td>
</tr>
<tr>
<td>Woodland Caribou (<em>Rangifer tarandus caribou</em>)</td>
<td>No suitable habitat is present within the project area. The project area is outside recognized caribou habitat.</td>
<td>Above 4,000 ft. in Engelmann spruce/subalpine fir and western red cedar/western hemlock forests.</td>
</tr>
<tr>
<td>Kootenai River White Sturgeon (<em>Acipenser transmontanus</em>)</td>
<td>No suitable habitat is present within the project area and the project lies outside of designated critical habitat.</td>
<td>Large lakes and rivers. In Idaho, their distribution is limited to the Kootenai River system.</td>
</tr>
<tr>
<td><strong>Sensitive Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bald Eagle (<em>Haliaeetus leucocephalus</em>)</td>
<td>No known nests or winter roosts within the project area. Project area is outside the bounds of expected use.</td>
<td>Normally nest and forage near large bodies of water. Winter visitors or yearlong residents of northern Idaho.</td>
</tr>
<tr>
<td>Black Swift (<em>Cypseloides niger</em>)</td>
<td>No suitable nesting habitat is present within the project area.</td>
<td>Builds nest behind or next to waterfalls and wet cliffs.</td>
</tr>
<tr>
<td>Peregrine Falcon (<em>Falco peregrinus anatum</em>)</td>
<td>No suitable nesting habitat is present within the project area.</td>
<td>Open habitats near cliffs and mountains. Nest in cliffs near an adequate prey base.</td>
</tr>
<tr>
<td>Black-backed Woodpecker (<em>Picoides arcticus</em>)</td>
<td>No suitable habitat is present within the project area.</td>
<td>Mixed conifer stands with numerous snags. Closely tied to post-fire habitat or areas with a high degree of bark beetle infestation, which produce an abundance of snags.</td>
</tr>
<tr>
<td>Common Loon (<em>Gavia immer</em>)</td>
<td>No suitable habitat is present within the project area.</td>
<td>Large, clear lakes below 5,000 ft. elevation with at least a partially forested shoreline.</td>
</tr>
<tr>
<td>Northern Bog Lemming (<em>Synaptomys borealis</em>)</td>
<td>No suitable habitat is present within the project area.</td>
<td>Bogs, fens and, wet alpine and sub-alpine meadows.</td>
</tr>
</tbody>
</table>
Species Analyzed in Detail

Species analyzed in detail are those that have been identified as species of concern within the project area that could potentially be affected by proposed activities. The analysis for each species describes the environmental baseline and relevant habitat components that may or may not be affected by the alternatives, if they were to be implemented. Information presented in the analysis is based on scientific literature, wildlife databases, and professional judgment, along with field surveys and habitat evaluations conducted over the last five years. Table 8 summarizes the species analyzed in detail, the rationale for analyzing them, and their preferred habitat.
<table>
<thead>
<tr>
<th>Species</th>
<th>Rationale for Detailed Analysis</th>
<th>Preferred Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threatened, Endangered Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grizzly Bear ((Ursus arctos horribilis))</td>
<td>None of the federal parcels are in a BMU, in an area outside the recovery zone considered to be supporting grizzly bears, or an area with documented use by grizzly bears. A portion of the non-federal parcel is within the Scotchman BMU.</td>
<td>Habitat generalist with seasonal preferences. Denning areas isolated and remote from human development.</td>
</tr>
<tr>
<td>Northern Gray Wolf ((Canis lupus))</td>
<td>There are no known wolf packs or home ranges within any of the federal parcels. The non-federal parcel is within close proximity to the Lightning Creek watershed, which has recent documented use by wolves.</td>
<td>Wide variety of habitats generally remote and isolated from human development. Adequate populations of prey species, including wintering concentrations of deer or elk.</td>
</tr>
<tr>
<td>Bull Trout ((Salvelinus confluentus))</td>
<td>None of the federal parcels have the potential to support bull trout. The non-federal parcel contains potentially suitable bull trout stream habitat.</td>
<td>Clear, very cold streams with loose, clean gravel for spawning and a complex stream structure of deep pools and cover (large woody debris, undercut banks), along with channel stability.</td>
</tr>
<tr>
<td><strong>Sensitive Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammulated Owl ((Otus flammeolus))</td>
<td>Potentially suitable habitat is present within the project area.</td>
<td>Mature to old growth ponderosa pine, Douglas-fir forest.</td>
</tr>
<tr>
<td>Pygmy Nuthatch ((Sitta pygmaea))</td>
<td>Potentially suitable habitat is present within the project area. Due to similarities in habitat requirements and potential impacts, this species will be analyzed with flammulated owls.</td>
<td>Ponderosa pine habitat, especially mature to old growth stands.</td>
</tr>
<tr>
<td>Fringed Myotis ((Myotis thysanodes))</td>
<td>Potentially suitable habitat is present within the project area. Due to similarities in habitat requirements and potential impacts, this species will be analyzed with flammulated owls.</td>
<td>Caves, mines, and abandoned buildings, large snag habitat.</td>
</tr>
<tr>
<td>Wolverine ((Gulo gulo))</td>
<td>None of the federal parcels are in an area with documented or expected use by wolverine. The non-federal parcel has the potential for use by wolverine.</td>
<td>Far-ranging omnivorous, habitat generalist. Strong association with remote, undeveloped areas.</td>
</tr>
<tr>
<td>Fisher ((Martes pennanti))</td>
<td>Capable habitat is present within the project area.</td>
<td>Mature, mesic forested habitats.</td>
</tr>
<tr>
<td>Harlequin Duck ((Histrionicus histrionicus))</td>
<td>None of the federal parcels have suitable habitat for harlequin ducks. The non-federal parcel contains stream habitat historically used by harlequin ducks.</td>
<td>Shallow, swift streams in remote, forested areas.</td>
</tr>
<tr>
<td>Western Toad ((Bufo boreas))</td>
<td>Terrestrial and breeding habitat is present within the project area.</td>
<td>Adults occur in a variety of uplands. Breed in shallow ponds, lakes, or slow moving streams.</td>
</tr>
</tbody>
</table>
Hope Sagle Land Exchange

<table>
<thead>
<tr>
<th>Species</th>
<th>Rationale for Detailed Analysis</th>
<th>Preferred Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westslope Cutthroat Trout (<em>Oncorhynchus clarki lewisi</em>)</td>
<td>Very limited potential habitat on one federal parcel. The non-federal parcel contains suitable stream habitat. Due to similarities in habitat requirements and use, this species will be analyzed with bull trout.</td>
<td>Cold, clear streams with rocky, silt-free riffles and slow, deep pools.</td>
</tr>
</tbody>
</table>

### Management Indicator Species and Focal Species

<table>
<thead>
<tr>
<th>Species</th>
<th>Habitat Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Goshawk (<em>Accipiter gentilis</em>)</td>
<td>Capable habitat is present within the project area with some small pockets of suitable habitat. Mature to old growth forest with a relatively closed canopy.</td>
</tr>
<tr>
<td>Pileated Woodpecker (<em>Dryocopus pileatus</em>)</td>
<td>Potentially suitable habitat is present within the project area. Forests with tall, large diameter dead or defective trees for nesting.</td>
</tr>
<tr>
<td>American Marten (<em>Martes americana</em>)</td>
<td>Capable habitat is present within the project area. Due to similarities in habitat requirements and potential impacts, this species will be analyzed with fisher. Variable mature conifer stands with canopy closures greater than 40 percent with abundant large, down woody debris</td>
</tr>
<tr>
<td>Rocky Mountain Elk (<em>Cervus elaphus nelsoni</em>)</td>
<td>Suitable habitat is present within the project area. Move seasonally using a variety of habitat types. Winter on low to mid-elevation slopes that are south facing.</td>
</tr>
</tbody>
</table>

### Effects Analysis Methodology

The environmental consequences discussion for each species provides information regarding the potential effects on those wildlife species from the proposed actions. Effects discussions include direct, indirect, and cumulative effects, all of which may have positive, negative or neutral consequences. Effects are quantified where possible, and qualitative discussions are also included.

The resource information provided, especially as it relates to habitat analysis, includes past actions such as timber harvest, road building and fire suppression contribute to what is now the existing or baseline condition of vegetative or aquatic habitats that provide a foundation for the analysis. For example, the characterization of forest structure from a regeneration harvest 25 years ago would acknowledge changes that have occurred from stand initiation to a mid-seral stage of succession.

Effects to the species analyzed will be measured by the net change in potentially suitable and capable habitat under federal ownership based on the parcels proposed for exchange. The classification of habitat as potentially suitable or capable is based on the best available science (e.g. conservation assessments, published research) specific to each species. The analysis will also take into account other factors affected habitat such as the future management of each parcel and the condition of habitat adjacent to each parcel, when applicable. As discussed previously, because it is unknown at this time exactly which parcels would be conveyed to private, the acres of habitat discussed will be based on the assumption that roughly an equal number of overall acres would be exchanged.

The rationale for increases in federal ownership of terrestrial and aquatic habitat being considered as an improvement is that federal lands are subject to more stringent management standards designed to protect and conserve natural resources than privately owned lands. Also, a substantial amount of oversight exists for public land agencies, which helps ensure that legally mandated
management standards are applied. State and private land management entities are governed by the rules pertaining to the Idaho Forest Practice Act, Title 38, Chapter 13, Idaho Code. In general, Idaho Forest Practices Act requirements result in narrower riparian buffers, higher road densities and limited timing restrictions than are permitted for the same management action on federal land. As an example, the wider riparian buffers utilized on federal land maintain shade, increase large woody debris recruitment and prevent an increase in stream temperatures thereby maintaining fish habitat.

One important factor that must be considered when analyzing the impacts of the land exchange on sensitive and MIS species is which alternative is more effective at providing habitat given that, 1) scattered, isolated parcels of National Forest System lands can act as a “refugia” of sorts for some species, but generally represent small parcels that are surrounded by private land that cannot be relied upon over time to provide suitable habitat and help support sensitive and MIS species that may use these “refugia” or 2) acquire lands that are contiguous with an existing large block of National Forest System lands that can be managed, along with the existing National Forest lands, to more effectively provide suitable habitat of sufficient size to help support many threatened, endangered, sensitive and management indicator species. It should be noted that wildlife and fish species that are most likely to use these “refugia” are also most likely habitat generalists, which are generally less susceptible to management actions.

Cumulative Effects Analysis

Present, ongoing, and reasonably foreseeable actions that could contribute to cumulative effects for species being analyzed are identified in the beginning of this chapter and a more detailed list in Appendix B.

Cumulative Effects Analysis Areas

The appropriate scale or geographic bounds for a cumulative effects analysis relates to an area that would be affected by the proposed action or reasonable alternative, in addition to other past, ongoing, or reasonably foreseeable activities in the vicinity of the project area. This area is referred to as the cumulative effects analysis area, and it may vary between resources. The task of selecting the geographical boundaries involves several factors, including the scope of the project considered, the features of the land, species’ relative home range size in relation to available habitat, and points of diminishing effects.

For species analyzed in detail, other than grizzly bear, the cumulative effects analysis area encompasses the parcels being considered for exchange and the lands immediately adjacent to them.

For grizzly bears, the cumulative effects analysis area is the Scotchman BMU (see Figure 1). Bear management units were created by the Forest Service in the early 1980s and later adopted by the U.S. Fish and Wildlife Service to roughly represent the size of a female grizzly bear’s home range containing all of the necessary habitat components. These BMUs are the principle unit for evaluating and analyzing potential impacts on grizzly bears. BMUs do not represent actual home ranges, but are areas established for the purpose of grizzly bear analysis.

Adjacent Lands and Other Ownerships

All of the federal parcels are bordered by land owned by private individuals, the State of Idaho or timber companies. Lands owned by timber companies, are typically managed for the primary purpose of resource extraction (i.e., timber). Since these timber stands are managed on a
relatively short rotation, they are usually precluded from reaching suitable habitat conditions for species that require a mature or late-successional forest structure.

There are also private residences adjacent to the federal parcels. Adjacent private land continues to be developed over time. Activities associated with these residences include, but are not limited to, road construction, road maintenance and use, lot clearing, hazardous fuels reduction around homes, and conversion of once forested lands to grassy areas. As a result, these ownerships are highly susceptible to adverse habitat modifications with respect to wildlife and fish habitat, and the presence of suitable habitat for the species analyzed cannot be relied upon over time.
Figure 2 - Grizzly bear cumulative effects analysis area

**Existing Habitat Condition**

Habitat within the analysis area was evaluated using habitat data in the Forest databases (TSMRS/FSVeg/FACTS and Aquatic) and in habitat spreadsheets created for this project. These data sources were reviewed and updated to reflect changes in conditions resulting from wildlife, fish and hydro surveys, field walk-through exams and aerial photo interpretations, which were conducted for this project over the last 5 years to insure they reflect current conditions as accurately as possible. This data includes information on forest structure and composition, forest type, elevation, aspect, age class, aquatic habitat parameters and wetland information, which
provides stand data of sufficient quality to adequately assess existing habitat conditions and to
analyze potential impacts from the alternatives analyzed in detail.

This analysis evaluates the potential for effects on wildlife and fish from changes in the quantity
and quality of forest and stream structure, microhabitat and disturbance levels that would likely
occur based on the alternatives. It considers changes that are expected to occur based on land
management objectives of the parties involved in the exchange. Stimson’s five year management
plans for the parcels they currently own and for the federal parcels that would be conveyed to
them under the proposed exchange were considered in the analysis of effects (see Project File).
Anticipated IPNF management plans were also considered in the effects analysis. This analysis
meets the intensity appropriate to address the risks and concerns for the relevant wildlife and fish
species.

Some assumptions have been made in order to analyze potential effects. The following
assumptions are based on existing law, Stimson’s management objectives and observed practices.

Stimson would access and manage, within the next five years, their existing timber lands
evaluated in the no action alternative and the federal lands they acquire under the proposed
exchange alternative. Neither alternative evaluated in detail would provide, within the
foreseeable future, additional mature/late seral wildlife habitat on Stimson’s parcels. Stimson
would comply with existing State and Federal laws. IPNF management is guided by Federal and
State laws and regulations.

In general, the proposed land exchange represents a relatively low risk to wildlife and fish species
based on the limited scope of the exchange in relation to the availability of terrestrial and aquatic
habitat on the IPNF. For example, there are approximately 1000 acres involved in the proposed
exchange on a Forest covering over 2.5 million acres of public lands, the parcels are scattered
across several townships and ranges, and there is expected to be little net change in acres of
ownership.

The descriptions of habitat in this section are intended to be general and qualitative. This
provides a coarse scale filter of the affected environment. When necessary for the analysis of
effects, more quantitative information is provided.

Terrestrial habitat on the federal and non-federal parcels consists of mixed conifer stands at
different successional stages. Elevations of parcels range from approximately 2300 feet to 3800
feet. The composition of the stands varies with aspect, elevation, soils, disturbance and other
variables determining the predominate tree species. Forest cover types on the lands considered
for exchange include Douglas-fir, lodgepole pine, ponderosa pine, western red cedar, grand fir,
western larch, white pine, western hemlock and non-forested. Successional stages of the stands
range from open/seedling to mature/late seral.

Past management actions have influenced existing wildlife and fish habitat on some parcels
considered in the analysis. These management actions include road construction and timber
harvest. Inherent biophysical conditions (e.g. elevation, aspect), natural disturbances (e.g. wind
events, wildfire) and succession also affect the existing and potential capability and suitability of
these parcels as wildlife habitat.

The proposed exchange would not transfer any federal acres of allocated old growth to private
ownership and no non-federal acres of old growth would become federal land. However, even if
all of the stands of mature forest on the federal parcels were transferred to private ownership,
there would be a net increase in federal ownership of approximately 485 acres of habitat that is currently in a mature condition (see Project File).

**Federal Parcels**

The federal land being considered for this land exchange is located on ten parcels spread out across three townships and eleven different sections. Not all ten federal parcels would be exchanged because the number of acres exchanged is expected to be of equal value to the approximately 922 acres that would become federal land. All of the federal parcels associated with this proposed land exchange are surrounded by private land and are isolated from large blocks of contiguous National Forest System lands. As such, although they may represent capable habitat for some wildlife species and offer a refugia of habitat, they likely provide little to no suitable habitat for the species analyzed because of the generally small size of the parcels. Refer to the map packet for parcel locations.

**Parcel F-1**  – This federal parcel is mostly densely forested and is dominated by immature stands of Douglas-fir and lesser amounts of western red cedar, western larch and grand fir. The parcel consists of the upper portions of a small, rounded knoll with numerous rock outcrops. There are no roads on this parcel. There are no fish bearing streams within this parcel.

**Parcel F-2**  – This federal parcel is generally forested and varies from areas with scattered trees and an open canopy to more dense stands of smaller diameter trees. The dominate tree species is ponderosa pine with some larger diameter trees present, but the majority are in the immature size class. Other tree species present include Douglas-fir, western larch and grand fir. The parcel consists of relatively steep terrain with some rock outcrops and a distinctive canyon. There is also a small wetland approximately a quarter of an acre in size within this parcel and a small section of a perennial, non-fish bearing stream. There is limited road access along the eastern edge of the parcel.

**Parcel F-3**  – This federal parcel is moderately steep and is comprised of a mix of size classes with the majority in an immature size class. The overstory consists of mainly Douglas-fir with some western red cedar, western larch, ponderosa pine and grand fir and to a lesser extent deciduous species. Areas of blow down and insect/disease were noted in parts of the parcel. There is currently no road access to this parcel. There are no fish bearing streams within this parcel.

**Parcel F-4**  – This federal parcel is dominated by a dense overstory of Douglas-fir and western red cedar. The understory varies across the parcel from saplings of Douglas-fir and western red cedar in some areas to heavy brush in small openings to a depauperate understory in areas with a high canopy closure. There is currently no road access to this parcel. There are no fish bearing streams within this parcel.

**Parcel F-5**  – This federal parcel is predominantly immature Douglas-fir with a mix of other size classes including a few mature stands. There are many areas with high tree densities and a high brush component crowding the understory. There is a moist area in the northern portion of the parcel that contains a western red cedar component with larger diameters and an open understory. Bayview Creek runs south through the eastern edge of the parcel. There is a wetland area approximately two-thirds of an acre in size within the parcel. Several areas of the parcel have been harvested and there are existing roads accessing a large portion of the parcel.

**Parcel F-7**  – This federal parcel is relatively flat and dominated by smaller diameter, sapling/pole-sized lodgepole pine trees with scattered patches of overstory ponderosa pine, western larch and
Douglas-fir trees. The parcel is bordered by two paved highways and is surrounded by a highly developed and managed landscape on the adjacent private lands. There are no fish bearing streams within this parcel.

Parcel F-8 – This federal parcel is relatively flat, forested and the majority of the parcel was harvested in the late 1970s and again in 1990. It is primarily a dry site dominated by sapling-sized lodgepole pine in some areas and pole-sized lodgepole pine in others with occasional ponderosa pine and Douglas-fir throughout. There are several primary and secondary logging roads accessing the majority of the parcel. There are no fish bearing streams within this parcel.

Parcel F-9 – This federal parcel is a mosaic of vegetative patterns with precommercially thinned regeneration of juvenile lodgepole pine trees interspersed with older patches of Douglas-fir and some ponderosa pine trees. The parcel is essentially flat, lightly forested and was harvested in the 1990. This parcel is roaded and is bordered on the east by a paved highway. There are no fish bearing streams within this parcel.

Parcel F-10 – The northern portion of this federal parcel is largely comprised of a dense stand of intermediate diameter trees dominated by western red cedar, grand fir and western hemlock with a smaller portion comprised of a more open understory with several mature, large diameter trees. The southern portion of this parcel is dominated by Douglas-fir with a considerable component of ponderosa pine. This portion of the parcel has a more open canopy structure with large expanses of rock outcrops throughout. There are currently no roads accessing this parcel. There are no fish bearing streams within this parcel.

Parcel F-11 – The majority of this federal parcel is comprised of high density, small diameter Douglas-fir in the overstory with shrubs crowding the understory. There is a cedar swale with scattered larger diameter Douglas-fir and western red cedar running through the middle of the parcel. Smaller portions of this parcel are open canopy with scattered Douglas-fir and ponderosa pine with several rock outcroppings and steep bluffs. There are currently no roads accessing this parcel. There are no streams within this parcel.

Non-federal Parcel
This parcel is located along the lower slopes of the Cabinet Mountains near the city of Clark Fork. The north and north eastern portions of the parcel border contiguous National Forest System lands. The eastern, western and southern boundaries of the parcel borders privately owned lands that are largely developed as private residences. The lower portions of the parcel are relatively flat, but as you move to the northeast, the slope quickly steepens.

Approximately .5 miles of Spring Creek bisects this parcel at the base of the slope. Spring Creek is a perennial, fish bearing stream. There are approximately five acres of wetlands contained within Spring Creek. The northeastern portion of this parcel has been extensively logged and mainly consists of brush species and sapling-sized conifers. This portion of the parcel is within the Scotchman Grizzly Bear Management Unit (see Figure 2). The remaining portions of the parcel are composed of mature timber stands that have had little to no recent timber harvest and retain a relatively closed canopy of mixed conifers. A main road accesses this parcel with several secondary logging roads accessing the lower slope portions of the parcel.
Threatened and Endangered Wildlife Species

Grizzly Bear

Grizzly bears are considered habitat generalists, using a broad spectrum of habitats. Populations of grizzly bears persist in areas where large expanses of relatively secure habitat exist and where human-caused mortality is low. Use patterns are usually dictated by food distribution and availability combined with a secure environment. Grizzly bears commonly choose low-elevation riparian areas and wet meadows during the spring, and are generally found at higher elevation meadows, ridges and open brush fields during the summer. Fall habitats are generally associated with timbered and riparian habitats.

The decline in grizzly bear numbers can be greatly attributed to habitat loss and human-caused mortality, either directly or indirectly (USDI Fish and Wildlife Service 1993). Controlling motorized access is one of the most important tools in managing grizzly bear recovery. The grizzly bear recovery plan states that roads likely pose the most imminent threat to grizzly bears and recommends that road management be given top priority within all recovery zones (USDI Fish and Wildlife Service 1993). By managing motorized access, certain objectives can be achieved including minimizing human/bear interactions and the potential for grizzly bear mortality, and reducing the displacement of bears from important habitats.

The Amended Biological Opinion for the Continued Implementation of the Idaho Panhandle National Forests Land and Resource Management Plan (USDI Fish and Wildlife Service 2001), provided a strategy for minimizing these risks by setting uniform standards for open motorized road density (OMRD), total motorized road density (TMRD) and core habitat1 within each bear management unit. In 2002, the IPNF produced a forest plan amendment regarding access management within BMUs that revised the standards for core, OMRD and TMRD to implement BMU specific standards based on the specific characteristics of each BMU, and in most cases set a higher standard than those required by the 2001 Biological Opinion. However, due to litigation, the 2002 Forest Plan Motorized Access Amendment is no longer in place.

The IPNF is currently working on a Supplemental Forest Plan Motorized Access Amendment and after its completion, along with the subsequent Biological Opinion from the Fish and Wildlife Service, the standards are expected to generally be the same as those required by the 2002 Forest Plan Motorized Access Amendment. Therefore, while BMUs are currently only required to meet the standards of the 2001 Biological Opinion, the IPNF will continue to work toward meeting the standards contained in the 2002 Forest Plan Motorized Access Amendment and the Draft Supplemental Forest Plan Motorized Access Amendment because it affords greater protection for grizzly bears than the standards and guidelines set by previous documents and because it will trend the affected BMUs towards compliance with the likely minimum standards that will be in place upon completion of the Final Supplemental Forest Plan Motorized Access Amendment and associated Biological Opinion.

1 Core habitat is areas of high quality, secure habitat within a BMU that contains no motorized travel routes or high use non-motorized trails during the non-denning season and is a minimum of 0.3 miles (500 meters) from a drivable road. Core habitat may contain roads that are impassable due to vegetation or constructed barriers. Core habitat should remain in place for a minimum of 10 years and should represent the full range of seasonal habitats available within the BMU (IGBC 1998, USDA Forest Service 2002).
Existing Condition

Approximately 458 acres or 50 percent of the lands that would be acquired by the Forest Service under this land exchange are within the Scotchman BMU. The remaining acres that would become National Forest System lands border the Scotchman BMU, but are not within it. The Scotchman BMU is comprised of 61,612 acres containing 39,053 acres of core habitat. Each BMU is designed to possess all of the habitat components necessary to support grizzly bears throughout the year by including habitats typically used by bears during all four seasons. The portion of the exchange within the Scotchman BMU is a south facing, low elevation parcel with little overstory and a high brush component. Consequently, the portion of the parcel within the BMU represents spring and summer grizzly bear habitat. See the wildlife project file for maps illustrating the grizzly bear seasonal habitat designations for the Scotchman BMU. None of the scattered parcels of land currently under federal ownership that would be conveyed to private ownership are within the designated grizzly bear recovery area, represent an area outside of the recovery area that is currently supporting grizzly bears, or is an area with documented grizzly bear use.

Per the 2001 Biological Opinion and the Draft Supplemental Forest Plan Motorized Access Amendment, the existing conditions of the total and open motorized road densities and core habitat were calculated for the Scotchman BMU. The comparisons of the existing conditions with respect to the established standards are displayed in Table 9. Per the Forest Plan security standard of striving for 70 square miles of security within each BMU, the existing condition of the Scotchman BMU during the 2008 active bear season (April 1 to November 15) was calculated. The comparison of the existing conditions with respect to the Forest Plan security standard is displayed in Table 10.

Table 9. Existing condition of open and total motorized road density and core in the Scotchman BMU compared to standards.

<table>
<thead>
<tr>
<th>Scotchman BMU</th>
<th>2001 FWS Biological Opinion Standard (Maximum Percent)</th>
<th>Draft Supplemental Forest Plan Motorized Access Amendment Standard (Maximum Percent)</th>
<th>2009 Existing Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>55%</td>
<td>62%</td>
<td>63%</td>
</tr>
<tr>
<td>OMRD</td>
<td>33%</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>TMRD</td>
<td>26%</td>
<td>26%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Table 10. Condition of security (square miles) in the Scotchman BMU compared to Forest Plan standard

<table>
<thead>
<tr>
<th>Bear Management Unit</th>
<th>Entire BMU (square miles)</th>
<th>Forest Plan Security Standard (square miles)</th>
<th>2009 Existing Condition (square miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotchman</td>
<td>96</td>
<td>70</td>
<td>67</td>
</tr>
</tbody>
</table>
Environmental Consequences

Methodology
The potential effects on grizzly bears were determined by the change in federal ownership of land within the Scotchman BMU and calculating any changes in the open and total motorized road densities within the affected BMUs, and the associated reduction or impacts to grizzly bear core habitat.

Direct and Indirect Effects of Alternative 1
This alternative would have no direct impacts on grizzly bear or their habitat. However, the lands within the Scotchman BMU would remain owned by a private timber company and activities such as motorized access and timber harvest would continue to occur without consideration of standards for road densities, core habitat or activity disturbance established for federal lands within a BMU. According to the Stimson management plans, the portion of the parcel immediately adjacent to but outside the BMU would be extensively harvested within the next five years, but there would be no additional road building.

Direct and Indirect Effects of Alternative 2
There would be no direct impact to grizzly bears from the implementation of Alternative 2. However, the acquisition by the Federal government of approximately 458 acres of land within the Scotchman BMU that is currently privately owned would allow for the opportunity for the land to be managed in a way that would retain or improve its condition with respect to its suitability as grizzly bear habitat (e.g. confine motorized access to the main road or utilize activity/timing restrictions on future management of the parcel). This parcel is also considered to be spring habitat, which is somewhat limiting across the landscape and its protection would likely be beneficial to grizzly bears. The Forest Service currently has no plans to conduct any management activities or reduce motorized access on this parcel, if it was acquired under this alternative.

However, it should be noted that although this parcel of land is contiguous with a large block of National Forest land within the Scotchman BMU, it is on the outer edge of that block and it is adjacent to other lands that would remain privately owned and contain private residences in many cases. Consequently, although this parcel has the potential to be utilized by grizzly bears, particularly in the spring, it is less likely to be used than more remote areas with little or no human disturbance.

Cumulative Effects
Because the implementation of either alternative would not impact grizzly bears or their habitat, there is no need to consider impacts from cumulative effects because the proposed land exchange would not be an additional impact on grizzly bears.

Conclusion of Effects
The implementation of either alternative would have no direct impacts on grizzly bears or their habitat. Under Alternative 1, the portion of the parcel within the Scotchman BMU would remain privately owned and although it would be harvested within the next five years, there would not be an increase in motorized access. While the acquisition of land within the Scotchman BMU by the Federal government under Alternative 2 would have no immediate impacts on grizzly bears, it would allow for management of the land toward achieving or maintaining standards for the BMU, although there are no current plans to reduce motorized access to this parcel. The effects
determinations for the final proposed action can be found in the Wildlife Biological Assessment (project file).

**Consistency with Forest Plan and Other Regulations**

Both alternatives are consistent with the Forest Plan direction for grizzly bear to manage the habitat of species listed under the Endangered Species Act (USDA Forest Service 1987, p. II-6). The proposed exchanged would be in compliance with the Forest Plan standard of striving for at least 70 square miles of security within the Scotchman BMU. The alternatives are also consistent with the Endangered Species Act direction to not jeopardize the continued existence of the species and not to cause the destruction or adverse modification of critical habitat.

**Gray Wolf**

Wolves are highly social animals with large home ranges that include a wide variety of habitats. A sufficient, year-round prey base, primarily ungulates, and adequate protection from human-caused mortality are considered important components of wolf habitat (USDI 1987, Tucker et al. 1990).

An inadequate prey density and a high level of human disturbance are the main factors that appear to limit wolf population and distribution (Mech 1995). Limiting wolf mortality associated with human/wolf interactions and managing for an abundant prey base are key in sustaining wolf populations. The density and distribution of open roads provides a good measure for determining the level of risk to wolves from human-caused mortality.

**Existing Condition**

While occasional wolf sightings are reported in northern Idaho, currently there is only one confirmed pack in the vicinity of the project area, which is the Calder Mountain pack approximately 15 miles to the north of the non-federal parcel that would become federal land in the exchange. There are currently no other confirmed, established wolf packs or home ranges (e.g. observations of reproduction, den sites, rendezvous sites) within close proximity of the project area. However, in July 2008, what was thought to be a lone wolf was seen along Forest Road 419 in the Lightning Creek drainage within approximately five miles of the non-federal parcel. This activity might indicate transient wolves, lone individuals, or wolves from a neighboring pack such as the Calder Mountain pack. There have also been several sightings and sign of wolves adjacent to the Lightning Creek drainage to the east on the Kootenai National Forest during the summer of 2008. It is believed that these wolves are likely a newly established pack and not part of one of the known existing packs. Additionally, within five miles of the non-federal parcel, two dead animals believed to be wolf kills were discovered by Forest Service personnel in East Fork Creek during the winter of 2009/2010.

There are no confirmed reports or sightings of wolves within close proximity to any of the scattered parcels of land currently under federal ownership that would be conveyed to private ownership. However, once in a while there are unconfirmed reports of individual wolves throughout the area to the west of Lake Pend Oreille, south of the Pend Oreille River, east of the Washington border and north of Highway 54, which is an area that includes some of the parcels that are being considered for exchange to private ownership. These sightings represent possible transient individuals, misidentifications or wolf hybrids, but are not considered to be a newly established pack.
On the Sandpoint Ranger District, available ungulate prey for wolves includes white-tailed deer, mule deer, elk and moose. Although no specific population numbers are available, deer, elk and moose are common in and around the project area.

**Environmental Consequences**

**Methodology**
The potential effects on wolves were determined by the change in federal ownership of land within areas that have the potential and are likely to support wolves.

**Direct and Indirect Effects of Alternative 1**
This alternative would have no direct impacts on gray wolves or their habitat. However, the lands within close proximity to documented wolf observations would remain owned by a private timber company and activities such as motorized access and timber harvest would continue to occur without considering timing restrictions around wolf dens and rendezvous sites, or management for adequate habitat for ungulate prey species. According to the Stimson management plans, a portion of this parcel would be extensively harvested within the next five years.

**Direct and Indirect Effects of Alternative 2**
There would be no direct impact to gray wolves from the implementation of Alternative 2. However, the acquisition by the federal government of approximately 922 acres currently under private ownership in close proximity to the Lightning Creek drainage would allow for the land to be managed in a way that would retain or improve its condition with respect to its ability to support gray wolves (e.g. maintain/enhance prey base or utilize activity/timing restrictions around den sites/rendezvous sites during future management of the parcel).

However, it should be noted that although this parcel of land is contiguous with a large block of National Forest land, it is on the outer edge of that block and it is adjacent to other lands that would remain privately owned and contain private residences in many cases. Consequently, although this parcel has the potential to be utilized by wolves, it is less likely to be used than more remote areas with little or no human disturbance.

**Cumulative Effects**
Since the implementation of either alternative would not impact wolves or their habitat, there is no need to consider the impacts of the project from a cumulative effects standpoint because this alternative would not be an additional impact on wolves.

**Conclusion of Effects**
There would be no detrimental modification of habitat for gray wolves or their prey species resulting from either alternative. The implementation of either alternative is not likely to increase the exposure of wolves to humans and it would not decrease the abundance of prey species available to wolves. In addition, due to the ability of gray wolves to thrive under a variety of land uses, the U.S. Fish and Wildlife Service concluded that successful wolf recovery in the northern Rocky Mountains does not depend on land-use restrictions, with the possible exception of temporary restrictions around active den sites on federally managed lands (USDI Fish and Wildlife Service 2003a).

The effects determinations for the final proposed action can be found in the Wildlife Biological Assessment (project file).
Consistency with Forest Plan and Other Regulations
Both alternatives are consistent with the Forest Plan direction for gray wolves to manage the habitat of species listed under the Endangered Species Act (USDA Forest Service 1987, p. II-6). The alternatives are also consistent with the Endangered Species Act direction to not jeopardize the continued existence of the species and not to cause the destruction or adverse modification of critical habitat.

Sensitive Wildlife Species
Flammulated Owl, Pygmy Nuthatch and Fringed Myotis
These three species share similar habitat requirements in dry site ponderosa pine/Douglas-fir forests, and they all depend on snags as prominent habitat features. Therefore, the analysis for these species begins with separate discussions on each species, but for analysis purposes, the potential effects to pygmy nuthatch and fringed myotis are discussed in conjunction with flammulated owl.

Flammulated Owl
Flammulated owls are seasonal migrants to the northern latitudes during spring and summer. They are attracted to relatively open grown, older forests of ponderosa pine and Douglas-fir that are associated with drier habitats. Reynolds and Linkhart (1992) reported that all published records of nesting in North America, except for one, were in forests in which ponderosa pine trees were present, if not dominant, in the stand. The flammulated owl’s preference for the ponderosa pine/Douglas-fir cover type can be linked to food availability. Reynolds and Linkhart (1992) noted a stronger correlation between prey availability and this cover type than with other common western conifers.

Primary risk factors attributed to forest management activities include 1) reduction in the amount of old forests and associated structures (large-diameter snags and logs) and 2) the unsustainable conditions of old forests where there have been transitions from shade-intolerant to shade-tolerant species, primarily due to fire exclusion (Wisdom et al. 2000).

Existing Condition
While no population numbers exist for the historic presence of flammulated owls, inferences can be made when comparing the historical occurrence of ponderosa pine with current levels, based on flammulated owls close association with ponderosa pine. According to historic vegetation estimates, ponderosa pine comprised 11 percent of the National Forests lands within the Pend Oreille subbasin. Today, only 2 percent of these lands consist of sites that are predominately ponderosa pine (USDA Forest Service, unpublished report). This has been an approximately 80 percent decline from historic conditions. Therefore, flammulated owls were probably more abundant in the past than they are today.

The parcels that are currently under federal ownership contain approximately 1193 acres of capable flammulated owl habitat and 53 acres of potentially suitable habitat. The lack of suitable habitat is mostly due to the relatively young age class of the stands on these parcels. All of the potentially suitable acres are located within parcel 10. There are also small patches of potentially suitable flammulated owl habitat scattered on some of the other parcels, particularly parcel 2, parcel 5 and parcel 11, but they are not of sufficient size to support flammulated owls. The privately owned parcels immediately adjacent to these parcels do not appear to contain sufficient habitat that would contribute to these areas being considered suitable for flammulated owls.
There are two stands totaling approximately 129 acres within the non-federal parcel that are considered to be capable flammulated owl habitat. Both stands have areas of potentially suitable flammulated owl habitat, but one of the stands has a high incidence of insect and disease which renders the majority of the stand as not currently suitable. However, the majority of the other stand exhibits the habitat parameters necessary to be considered suitable for flammulated owls and other dry site associated species. Consequently, of the approximately 129 acres of flammulated owl habitat on this parcel, approximately 104 acres are currently considered to be potentially suitable for flammulated owls.

Pygmy Nuthatch
The pygmy nuthatch is a sedentary, year-round resident of ponderosa pine forests (Ghalambor 2003). It relies heavily on the foliage of live, larger ponderosa pines as foraging habitat and on larger ponderosa pine snags for nesting and roosting cavities (McEllin 1979). Their almost exclusive association with ponderosa pine, particularly mature stands that are fairly open (less than 70 percent canopy closure), leads to a patchy distribution of the pygmy nuthatch as they mirror the distribution of ponderosa pine (Kingery and Ghalambor 2001, Engle and Harris 2001). Pygmy nuthatch abundance is directly correlated with snag density and foliage volume (Ghalambor 2003). Their diet consists mainly of insects during the breeding season and in some areas, they forage almost exclusively on pine seeds in the non-breeding season (Ghalambor 2003).

The main threats to the pygmy nuthatch are the loss of ponderosa pine-dominated forests and low snag densities (Ghalambor 2003). There has been a substantial decline of mature ponderosa pine forests in recent years (Wisdom et al. 2000). Studies have shown that due to the high dependence of pygmy nuthatch on snags, reducing the number of snags greatly reduces pygmy nuthatch densities by decreasing the availability of suitable nest and roost cavities (Balda et al. 1983, Scott 1979).

Existing Condition
Information on the presence and distribution of pygmy nuthatch in north Idaho is limited. There have been no concerted efforts to survey pygmy nuthatch in this area and there are no records of observation. Although population dynamics of this species are not fully understood for this area, the declining availability of ponderosa pine-dominated habitat due to the increase in shade tolerant species would seem to indicate that pygmy nuthatch numbers may be in decline because of their dependence on ponderosa pine.

Fringed Myotis
Fringed myotis use a fairly broad range of habitats usually represented by open areas (e.g., grasslands) interspersed with mature forests (usually ponderosa pine, pinyon-juniper or oak) at middle elevations that contain suitable roosts sites and are near water sources (Keinath 2004).

Fringed myotis feed on insects during flight and glean insects off of vegetation, usually near the top of the forest canopy, with beetles and moths making up the majority of their diet (Keller 2000, O’Farrell and Studier 1980, Wisdom et al. 2000). Fringed myotis use caves, mines, buildings and rock crevices as day, night, maternity, and hibernation roost sites (Ellison et al. 2004) when available. They also roost underneath the bark and inside hollows of snags, particularly larger ponderosa pine and Douglas-fir snags in medium stages of decay (O’Farrell and Studier 1980, Rabe et al. 1998, Weller and Zabel 2001, Rasheed et al. 1995). Generally, snags used as roost sites are in somewhat open microsites within otherwise contiguous forest (Weller and Zabel 2001,
Keinath 2004). Because of the short lifespan of snags, bats using snags to roost require a high density of snags and often move between snags while roosting (Weller and Zabel 2001, Rabe et al. 1998).

The main risks to fringed myotis are the loss of suitable habitat for foraging or roosting, and human disturbance of roost sites. Fringed myotis, like many bat species, are very sensitive to disturbance or habitat modification and any change in conditions altering the microclimate (e.g., airflow, thermal regime) close to roosts can have a substantial impact (Keinath 2004). Fringed myotis are perhaps more vulnerable to alterations of mature or old growth forest conditions than most bat species because of their close association with these forests that contain abundant, large snags for roosting (Keinath 2004).

**Existing Condition**

Information on the current presence and distribution of fringed myotis in north Idaho is limited. However, due to the decrease in dry site ponderosa pine habitat, which produced large-diameter-long lived ponderosa snags associated with fringed myotis habitat, it can be reasonably inferred that fringed myotis population numbers were higher prior to fire suppression, which altered species composition and structure. Bat surveys in 2006 documented the presence of fringed myotis in adits on the Sandpoint Ranger District, but to date they have only been documented on the east side of Lake Pend Oreille.

**Environmental Consequences**

**Methodology**

The appropriate method to determine the potential impact on flammulated owls, pygmy nuthatch, fringed myotis and their habitat is to analyze the change in federal ownership of capable and/or suitable habitat for these species as a result of each alternative.

**Direct, Indirect and Cumulative Effects of Alternative 1**

There would be no direct impacts to flammulated owl from this alternative. Acres of capable flammulated owl habitat currently under private ownership would remain capable based on timber harvesting planned within the next five years, which indicate there would be no timber harvest in these areas. In addition, no management is planned on the acres of potentially suitable flammulated owl habitat that are currently under private ownership and consequently these acres would remain suitable under this alternative.

The Forest Service currently has no reasonably foreseeable management activities planned on any of the federal parcels included in this land exchange. Therefore, the acres of potentially suitable flammulated owl habitat would remain so under this alternative.

In conjunction with other activities occurring in the vicinity of the federal parcels such as continued private residential development and timber harvest on other private lands, this alternative would likely have no impact on the ability of these parcels to support flammulated owls.

**Direct, Indirect and Cumulative Effects of Alternative 2**

There would be no direct impact on flammulated owls as a result of the implementation of Alternative 2. Under this alternative, there would be a decrease in the amount of capable flammulated owl habitat under federal ownership. The amount of the decrease in acres would depend on which parcels are ultimately included in the exchange. Using the assumptions that the
total number of acres exchanged would be relatively equal, and that capable flammulated owl habitat is equally distributed among the parcels; there would be approximately a 494 acre decrease in federal ownership of capable flammulated owl habitat. Based on the Stimson management plans over the next five years, the acres of flammulated owl habitat that are currently capable would remain capable. However, under the shorter timber rotations typically utilized by private timber companies, capable habitat would be unlikely to become suitable habitat.

Conversely, there would be a net increase in flammulated owl habitat that is in potentially suitable condition. The amount of the increase is dependent on whether or not federal parcel F-10 is included in the exchange because it is the only parcel under federal ownership that contains potentially suitable flammulated owl habitat. If federal parcel F-10 is included in the exchange, there would be a net increase in potentially suitable flammulated owl habitat under federal ownership of approximately 51 acres. If federal parcel F-10 is not included in the exchange, there would be an increase in potentially suitable habitat under federal ownership of approximately 104 acres. In addition, the non-federal parcel that would be conveyed to federal ownership is connected to a large block of existing National Forest System lands that are also potentially suitable for flammulated owls. Therefore, conveying the non-federal parcel to federal ownership represents a better scenario for providing suitable flammulated owl habitat into the future than the current situation of managing small, isolated parcels of habitat that are unlikely to have suitable habitat on adjacent private lands.

In conjunction with other activities occurring in the vicinity of all the federal and non-federal parcels, such as continued private residential development and timber harvest on other private lands, this alternative would likely maintain or increase the ability of the non-federal parcel that would be conveyed to federal ownership to support flammulated owls. This alternative would likely decrease the ability of the federal parcels conveyed to Stimson ownership to support flammulated owl given their proposed management plans.

Conclusion of Effects

Alternative 1 would have no direct impact on flammulated owl or their habitat. In addition, there are no reasonably foreseeable plans on the part of the Forest Service or Stimson to actively manage any of the acres classified as capable or potentially suitable flammulated owl habitat under this alternative. Therefore the implementation of Alternative 1 in conjunction with the past actions, ongoing activities and reasonably foreseeable actions would have no impact on flammulated owl, pygmy nuthatch or fringed myotis.

Under Alternative 2, there would be a net increase in potentially suitable flammulated owl habitat under federal ownership. However, there would be a decrease in federal ownership of capable flammulated owl habitat, but generally these acres represent small, isolated patches of habitat that are less likely to support flammulated owls. Based on the proposed Stimson management plans, some of the acres of capable flammulated owl habitat on federal land that would be conveyed to Stimson would be harvested within the next five years. Although these acres would remain capable, they would be less likely to mature into suitable habitat because of the typically shorter timber rotation on private timber company lands. As a result, this alternative may impact flammulated owl habitat on the federal parcels that would be conveyed to Stimson. The Forest Service does not have any plans to harvest any of the capable or potentially suitable flammulated owl habitat that would be acquired under this alternative.
In addition, Samson (2006) concluded that the short-term viability of the flammulated owl in the Northern Region of the Forest Service and on the IPNF is not an issue because:

- No scientific evidence exists that the flammulated owl is decreasing in numbers.
- Increases in the extent and connectivity of forested habitat have occurred since European settlement.
- Well-distributed and abundant flammulated owl habitat exists on today’s landscape.
- Level of timber harvest in the Northern Region (in 2008, 5,874 ha of 9,045,255 ha or 0.06% of the forested landscape) and IPNF (809 ha of 999,733 ha or 0.08% of the forested landscape) is insignificant.

Consequently, the implementation of Alternative 2, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species for flammulated owl, pygmy nuthatch and fringed myotis.

**Consistency with Forest Plan and Other Regulations**

Both alternatives are consistent with the Forest Plan direction to manage the habitat of species listed in the Regional Sensitive Species List to prevent further declines in populations, which could lead to Federal listing under the Endangered Species Act (USDA Forest Service 1987). Therefore, these actions would also be consistent with the National Forest Management Act requirements to provide for the diversity of plant and animal communities across the Forest.

**Wolverine**

The wolverine is a low density, wide-ranging species that are found in a variety of open and forested habitats at all elevations, usually associated with remote mountain areas. As is the case with other forest carnivores, the wolverine requires large, remote areas to roam and forage. They are generally described as opportunistic omnivores and travel long distances during daily searches for prey. Preferences for some forest cover types, aspects, slopes or elevations have been primarily attributed to food abundance (Ruggerio et al. 1994). However, an important feature of their habitat is high elevation cirque basins that provide reproductive security and year-round foraging, particularly for females.

Refugia or the presence and stability of ecosystems lacking broad-scale human influence are an important life history requirement for wolverine (Copeland 1996). Primary risk factors that can threaten local population viability of the species include reduction of wilderness “refugia” through access and management practices that degrade the presence and opportunity for food availability (Copeland 1996). Ruggerio et al. (1994) showed through previous studies that the availability of large mammals and large mammal carrion is of paramount importance to the distribution, survival, and reproductive success of wolverine.

Wolverine is listed as a “sensitive” species by Region One of the Forest Service (USDA Forest Service 2005) and is listed as a “species of concern” by the State of Idaho. However, in 2008 the U.S. Fish and Wildlife Service determined that wolverine occurring in the contiguous United States did not warrant listing under the Endangered Species Act (USDI Fish and Wildlife Service 2008).

The protection of potential maternal den sites is also vital for the persistence of wolverine. Wolverines appear to be very sensitive to human disturbance, particularly at maternal dens.
Environmental Assessment (Magoun and Copeland 1998). Intense human disturbance may impair kit survival if females are displaced into less secure habitat or to use less secure den sites (Banci 1994). When viewed in conjunction with potential displacement and disturbance by winter recreation activities, denning habitat may be a limited and critical component of wolverine habitat (Copeland 1996). A study in Idaho found that wolverine select den sites associated with large boulder talus in high elevation, subalpine cirque basins (Copeland 1996).

Land use activities that fragment habitat or increase human access into habitat also appear to negatively affect wolverine. These impacts are considered likely to be similar to those that have been described for grizzly bears (Ruggiero et al. 1994). Krebs et al. (2007) suggested that wolverines negatively responded to human disturbance and that human use, particularly winter recreation, helicopters and the presence of roads, reduced the value of habitat for wolverines. Mountain ranges with high densities of roads are also less likely to contain sufficient refugia to support wolverine (Squires et al. 2007).

Existing Condition
The wolverine is considered scarce or rare in north Idaho, however, the actual status and range remains uncertain. The scarcity of information is largely due to the difficulty and expense in studying a solitary and secretive animal found mostly in remote locations. Occasional observations have been reported and tracks documented in recent decades. In Central Idaho, Copeland (1996) found that the average home range for females and males were 148 square miles and 588 square miles, respectively.

Little information exists on wolverine distribution in northern Idaho, but the presence of wolverine has been historically documented on the north zone of the IPNF. There has been only one confirmed presence of wolverine on the Sandpoint Ranger District within the last ten years, which was documented in the Moose Lake area in 2008, approximately 12 air miles to the northeast of the non-federal parcel. There have been no documented observations or occurrences of wolverine within the federal lands proposed to be conveyed to private ownership. Wolverines would not be expected to utilize these isolated National Forest parcels due to the mixed ownership surrounding them, a relatively high degree of roads compared to wilderness areas and residential development. There are no cirque basins within any of the lands considered in the land exchange.

Environmental Consequences

Methodology
The potential effects on wolverine were determined by the change in federal ownership of land within areas that have the potential to support wolverine.

Direct and Indirect Effects of Alternative 1
This alternative would have no direct impacts on wolverine or their habitat. According to the Stimson management plans, a portion of this parcel would be harvested within the next five years, but this parcel would still retain its ability to support foraging wolverine. There would not be any disturbance to wolverine dens or denning habitat expected as a result of the implementation of this alternative.
Direct and Indirect Effects of Alternative 2
There would be no direct impact to wolverine from the implementation of Alternative 2. The acquisition by the federal government of the non-federal parcel in the Spring Creek drainage would allow for the land to be managed in a way that would retain or improve its ability to support foraging wolverine (e.g. maintain/enhance prey base and manage motorized access).

However, it should be noted that although the non-federal parcel is contiguous with a large block of National Forest land, it is on the outer most edge and is adjacent to lands that would remain privately owned and contain private residences. Consequently, although this parcel has the potential to be utilized by foraging wolverine, it is less likely to be used than more remote areas with little or no human disturbance.

Cumulative Effects
Because the implementation of either alternative would have no impact on wolverine or their habitat, there is no need to consider the impacts of the project from a cumulative effects standpoint because this alternative would not be an additional impact on wolverine.

Conclusion of Effects
There would be no impact on high elevation cirque basins or potential denning habitat under either alternative. There would also be no increase in access into remote areas as a result of the project. Therefore, the implementation of either alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions would have no impact on wolverine.

Consistency with Forest Plan and Other Regulations
Both alternatives comply with the Forest Plan direction to manage the habitat of species listed in the Regional Sensitive Species lists to prevent further declines in populations, which could lead to federal listing under the Endangered Species Act. These actions would also be consistent with the National Forest Management Act requirements to provide for the diversity of plant and animal communities across the Forest.

Fisher and American Marten
Habitat used by fisher and American marten is largely similar, although marten have slightly less stringent habitat requirements. Based on this substantial overlap in the use of habitat, the proposed exchange would potentially affect these species similarly. Therefore, the analysis for these species begins with separate discussions on each species, but for analysis purposes the potential effects to marten are discussed in conjunction with fisher.

Fisher
Fisher are low density, forest carnivores, occurring most commonly in landscapes dominated by late-successional forests with high cover, especially in riparian areas (Ruggiero et al. 1994). Large diameter snags and logs are used for denning and foraging. Fisher prefer forests with a high canopy closure and avoid areas with a low canopy closure (e.g. less than 50 percent) (Powell 1982). Forests within or adjacent to riparian areas appear to be particularly important to fishers (Heinemeyer and Jones 1994). A study in north central Idaho found that fishers generally preferred grand fir and spruce forests, and avoided dry ponderosa pine and Douglas-fir habitats (Jones 1991). However, in winter fishers also selected stands with relatively high basal areas of Douglas-fir and lodgepole pine.
Fishers historically occupied much of the forested habitats in the northern United States (Heinemeyer and Jones 1994). Populations declined in the early twentieth century, probably due to habitat loss from human settlement, logging, over trapping and poisoning. In the western United States, fishers have remained at low numbers or absent from their former range (Heinemeyer and Jones 1994).

Risks to fisher include habitat loss or degradation and changes in human access, which can lead to increased vulnerability of fisher to being over trapped since they are easily trapped.

**Existing Condition**
Population trend information for fishers in northern Idaho is unavailable, but based on sighting and hair snag sampling, fishers are currently considered to be uncommon to rare. Although there are approximately 1300 acres of capable fisher habitat on the federal parcels included in the proposed exchange, these acres are spread out over a large geographical area and thus do not contain the habitat characteristics necessary to be considered suitable fisher habitat largely due to the lack of large, contiguous blocks of mature, forested habitat. There are approximately 147 acres of mature habitat within federal parcels F-5, F-10 and F-11, but these are relatively small areas surrounded by open, and in many cases, drier habitat types that do not contribute to suitable fisher habitat. There is also limited riparian habitat on the federal parcels. The non-federal parcel contains approximately 777 acres of capable fisher habitat and within these acres is a block of contiguous mature forested habitat of approximately 450 acres.

**American Marten**
American marten are limited to conifer-dominated forests. In most studies of habitat use, martens showed a preference for late successional stands of moist coniferous forests, especially those with complex physical structure near the ground such as substantial amounts of down woody debris. Structure near the ground provides for protection from predators, below the snow access in winter and resting places. Their most common prey species (e.g. voles and pine squirrels), are most abundant in mature to late successional forests. Marten generally avoid open, drier forest types and those that lack structure near the ground (Warren 1990, Buskirk and Ruggerio 1994).

Marten were historically more abundant within the Interior Columbia Basin than they currently are due to declines in mature, old growth habitat (Wisdom et al. 2000).

**Existing Condition**
The presence of marten has not been documented within any of the federal and non-federal parcels being considered in the exchange. Anecdotal evidence suggests that marten are somewhat common and likely inhabit areas of the district where the appropriate habitat characteristics exist. In Idaho, marten are managed as a furbearer with an open trapping season. As in the case of fisher, there is limited marten habitat within the federal parcels included in this exchange because of the lack of large blocks of contiguous mature forested areas. The non-federal parcel contains a larger block of mature habitat and a higher degree of riparian habitat and is more likely to support marten.
**Environmental Consequences**

**Methodology**
The appropriate method to determine the potential impact on fisher, marten and their habitat is to analyze the change in federal ownership of acres capable of supporting fisher habitat as a result of each alternative.

**Direct, Indirect and Cumulative Effects of Alternative 1**
There would be no direct impacts to fisher or marten from this alternative. However, the large non-federal block of 450 acres of mature habitat that currently may be supporting fisher and marten, would receive an overstory removal harvest. This harvest would convert the stands to an earlier size class and decreased canopy closure. As a result, the harvested acres would not be considered suitable fisher and marten habitat for approximately 80 to 100 years from the time of harvest and only then if these stands are allowed to mature before additional harvest occurs.

There are no reasonably foreseeable management activities planned on any of the federal parcels were they to remain under federal ownership. Therefore, mature forested habitat would not be impacted.

In conjunction with other activities occurring in the vicinity of the federal parcels such as continued private residential development and timber harvest on other private lands, this alternative would likely impact the ability of the areas in and around the non-federal parcel proposed in the exchange to support fisher and marten.

**Direct, Indirect and Cumulative Effects of Alternative 2**
There would be no direct impact on fisher and marten as a result of the implementation of Alternative 2. As noted in the discussion of the existing habitat conditions, the acres of mature habitat on the federal parcels are not within large enough blocks to be considered suitable fisher or marten habitat. Although these mature habitat acres do not likely support fisher or marten, they would be harvested under Stimson’s five year management plan being converted to a younger size class and a more open canopy. These areas would remain capable fisher and marten habitat, but under the shorter timber rotations typically utilized by private timber companies, they would be unlikely to become suitable habitat.

Under this alternative, although the total number of acres under federal ownership to be conveyed to non-federal ownership would likely be the same or slightly more than those acres of non-federal ownership to be acquired, there would be a minimum net increase in mature habitat of approximately 485 acres that would become federally owned. Included in this acquisition is the large block of approximately 450 acres that may be currently supporting fisher and marten. As a result, the acres that are proposed for an overstory timber harvest by Stimson within the next five years in Alternative 1 would instead be under federal ownership. The Forest Service currently has no plans to do any type of timber harvest on this parcel if it were to become federally owned. Future management actions on the acquired non-federal parcel would take into consideration fisher and marten habitat requirements when develop proposed plans (e.g. limited timber harvest that maintains or trends these acres towards supporting fisher and marten).

In conjunction with other activities occurring in the vicinity of all of the federal and non-federal parcels considered for exchange, such as continued private residential development and timber harvest on other private lands, this alternative would likely maintain or increase the ability of the non-federal parcel that would be acquired to support fisher and marten. This alternative would
also likely decrease the ability of the federal parcels that would be conveyed to Stimson to support fisher and marten, although it is unlikely they currently support these species.

**Conclusion of Effects**

Under Alternative 1, there would be no exchange of parcels. Based on the proposed Stimson management plans approximately 450 acres of habitat that may be supporting fisher and marten would be harvested and converted to a younger ages class and lower canopy closure that would likely no longer support these species. There are no proposed management actions on the federal parcels under this alternative.

Under Alternative 2, if all of the stands of mature forest on the federal parcels were transferred to private ownership, there would be a net increase in federal ownership of approximately 485 acres of habitat that is currently in a mature condition, including the contiguous block of 450 acres of mature, forested habitat. However, there is likely to be a larger net increase in federal ownership of mature habitat because it is expected that not all of the federal parcels containing mature habitat would ultimately be included in the land exchange. Under this alternative, Stimson management plans indicate that the mature acres they would acquire would receive a level of timber harvest that would further reduce their ability to support fisher and marten. However, as discussed previously, due to the relatively small size of these mature acres, those acres are already unlikely to be supporting fisher or marten.

In addition, Samson (2006) concluded that the level of timber harvest has been insignificant in the Northern Region (in 2008, 5,874 ha of 9,045,255 ha or 0.06% of the forest landscape) and IPNF (808 ha of 999,733 forested ha or 0.08%) in recent years. Bush and Lundburg (2008) estimate that the IPNF currently contains approximately 2,106 km² of fisher summer habitat and approximately 4,831 km² of fisher winter habitat. Samson (2006), citing Smallwood (1999), asserts that the threshold habitat level to maintain a viable fisher population is 405 km² of habitat, or about 20 percent of what is currently available on the IPNF. Given this information, it is highly unlikely that the relatively small changes in ownership associated with this land exchange would result in a loss of viability of this species. As a result, adequate habitat to maintain viable fisher populations would remain on the IPNF after the land exchange.

For marten, Bush and Lundberg (2008) estimate that based on FIA data, there are approximately 1,302,214 acres of marten habitat on the IPNF. Samson (2006) estimates the critical habitat threshold for marten to be approximately 17,300 acres (70 km²). As a result, marten viability and distribution would be maintained under either alternative.

Consequently, the implementation of either alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species for fisher and similarly, may impact individuals or habitat, but would not indicate a local or regional change in habitat quality or population status for marten.

**Consistency with Forest Plan and Other Regulations**

Both alternatives would be consistent with the Forest Plan direction to manage the habitat of species listed in the Regional Sensitive Species List to prevent further declines in populations, which could lead to Federal listing under the Endangered Species Act (USDA Forest Service 1987, p. II-28). Neither alternative would trend fisher toward the need for Federal listing. Therefore, both alternatives would also be consistent with the National Forest Management Act requirements to provide for the diversity of plant and animal communities across of the Forest.
The IPNF Forest Plan (USDA Forest Service 1987) selected marten as a management indicator species because they are commonly trapped and have habitat needs that may be affected by management activities (e.g. mature/old growth habitat). Neither alternative would transfer any acres of allocated old growth to private ownership and no additional acres of old growth would become Federal land. In addition, the implementation of either alternative would also not represent a decrease in mature habitat under federal ownership. Consequently, both alternatives would be in compliance with the Forest Plan. These actions would also be consistent with the National Forest Management Act requirements to provide for a diversity of plant and animal communities.

**Harlequin Duck**

Harlequin ducks are rare, seasonal residents of whitewater streams in the northern Rocky Mountains. They are small sea ducks that winter in coastal areas and migrate inland to northern Idaho, western Wyoming and western Montana to breed and rear young. Harlequins nest along clear, clean, swiftly flowing remote mountain streams with vegetated stream banks, which are located away from concentrated human activities. The presence of harlequin ducks is considered to be an indicator of high water quality.

Harlequin ducks are listed as a “sensitive” species by Region One of the Forest Service (USDA Forest Service 2005) and are listed as a “species of concern” by the State of Idaho. Management activities that impact stream quality, including those that could increase water yield beyond the stream’s capability have the potential to impact harlequin ducks. Sedimentation of breeding streams may alter the species composition of macroinvertebrates, which are the main prey species of harlequin ducks or reduce their ability to locate prey (Cassirer et al. 1996). Consequently, water quality relative to harlequins is vital to protect their prey base and for the maintenance of hydrologic function within the stream setting.

Suitable habitat for breeding harlequin ducks is comprised of second order or larger streams that contain reaches with riffle habitat, clear water, gravel to boulder-sized substrate, forested bank vegetation and an average gradient of one percent to seven percent (Cassirer et al. 1996). Disturbances that alter the seclusion or isolation that mountain streams provide to breeding pairs and their young can also impact the species (Cassirer et al. 1996). Streams that are removed from human disturbance show the greatest success in harlequin duck breeding rates (Wallen and Groves 1988). Human activities that have the potential to disturb breeding pairs of harlequin duck include roads, trails, campsites and recreational activities that occur within riparian areas of suitable harlequin duck streams.

**Existing Condition**

The presence of harlequin ducks has been documented within the Lightning Creek drainage starting as early as the late 1970s and their presence has been documented as recently as 2008. Spring Creek (a subdrainage of Lightning Creek), which flows through the non-federal parcel, has historically been used by harlequin ducks as a breeding stream. However, the last documented observation of harlequin ducks on Spring Creek was in 1982. There are no streams that contain suitable habitat for harlequin ducks on any of the federal parcels included in the proposed exchange.
Environmental Assessment

Environmental Consequences

Methodology
The potential effects on harlequin ducks were determined by the change in federal ownership of stream habitat that has the potential to support breeding harlequin ducks.

Direct and Indirect Effects of Alternative 1
This alternative would have no direct impacts on harlequin ducks or stream habitat. However, the non-federal parcel containing approximately 0.5 miles of Spring Creek and portions of two subdrainages that flow into Spring Creek would remain non-federal, owned by Stimson Lumber Company. Activities such as motorized access and timber harvest would likely continue to occur without considering timing restrictions or sufficient activity buffer zones to protect stream habitat and limit disturbance to breeding harlequin ducks. Although according to the Stimson management plans, a portion of this parcel would be harvested within the next five years, no activity is planned within close proximity of Spring Creek.

Direct and Indirect Effects of Alternative 2
There would be no direct impact to harlequin ducks from the implementation of Alternative 2. The acquisition of the non-federal land, including approximately 0.5 miles of Spring Creek and the associated riparian habitat, would allow for management practices that would maintain or improve the ability of the parcel to support harlequin ducks (e.g. activity/timing restrictions during breeding season, water quality protection). However, harlequin duck have not been documented in Spring Creek since 1982 and it is somewhat unlikely that they would utilize this stream for breeding because the majority of the stream is under private ownership, has been somewhat developed and lacks the level of solitude this species prefers.

Cumulative Effects
Since the implementation of either alternative would have no direct impact on harlequin ducks or their habitat, there is no need to consider the impacts of the project from a cumulative effects standpoint because this alternative would not be an additional impact on harlequin ducks.

Conclusion of Effects
There would be no disturbance to harlequin ducks or an increase in sediment delivery to streams as a result of either alternative. Therefore, the implementation either alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions would have no impact on harlequin ducks.

Consistency with Forest Plan and Other Regulations
Because potential breeding habitat would be protected, both alternatives would comply with the Forest Plan direction to manage the habitat of species listed in the Regional Sensitive Species Lists to prevent further declines in populations, which could lead to federal listing under the Endangered Species Act. These actions would also be consistent with the National Forest Management Act requirements to provide for the diversity of plant and animal communities across the Forest.

Western Toad
Western toads can be found in a variety of habitat types depending on the time of year, including forested areas while foraging. Breeding takes place from May to July in shallow areas of large
and small lakes, beaver ponds, temporary ponds, slow moving streams, and backwater channels of rivers (Maxell 2000). Western toads have been documented traveling more than four kilometers (approximately 2.5 miles) between terrestrial burrows and breeding sites (Maxell 2000). The western toad is most active at night in lower elevations and diurnal at higher, more northerly aspects.

Survey results combined with incidental observations suggest that this species is found throughout much of northern Idaho. However, while western toads may be widespread across the landscape, it is unknown in what proportion of suitable habitat they occur. Surveys conducted in the northern Rocky Mountains in the 1990s revealed that western toads were absent from a large portion of their historic range and occupied only a small proportion of suitable habitat (Maxell 2000).

The loss or alteration of aquatic breeding habitat, migration barriers (i.e., roads) between breeding habitat and terrestrial habitat and mortality risk from roads bisecting migration routes appear to be the primary potential risk factors for western toads. Steep road cuts can be a barrier to toads moving between seasonal habitats and road prisms can also provide a barrier-free travel corridor that can increase the chance for mortality by vehicles. Juvenile toads are vulnerable to being killed by motorized vehicles while dispersing from their natal ponds.

Existing Condition

Potential boreal toad breeding habitat is somewhat limited within the federal parcels, with the exception of parcel F-5 and possibly parcel F-2. Federal parcel F-5 contains a small wetland and Bayview Creek, which is a perennial stream. Federal parcel F-2 contains a small wetland located at the bottom of a steep canyon. The non-federal parcel contains approximately a half a mile of Spring Creek, a quarter of a mile of Becker Creek and approximately 4.5 acres of wetlands. Of the wetlands, two are smaller, distinct wetlands and the third represents a little less than one acre of an over 28 acre wetland. See the Hydrology section and project file for a more detailed account of wetlands within the parcels proposed for exchange. Although the presence of western toads is likely based on the widespread distribution of the species, there have been no documented observations of western toads within any of the federal parcels proposed for exchange.

Environmental Consequences

Methodology

The potential effects on western toads were determined by the change in federal ownership of potential western toad breeding habitat.

Direct and Indirect Effects of Alternative 1

This alternative would have no direct impacts on western toads or their potential breeding habitat. The non-federal parcel containing portions of Spring Creek, Becker Creek and three wetlands would remain owned by Stimson Timber Company. Proposed timber harvest on the non-federal parcel would follow the Idaho Forest Practices Act, which would afford some level of protection for aquatic habitats. Similarly, the two federal parcels that contain wetland and perennial stream habitat would continue to be managed to protect these resources. There are no reasonably foreseeable management activities planned on any of the federal parcels.
Direct and Indirect Effects of Alternative 2
There would be no direct impact to western toads from the implementation of Alternative 2. The acquisition by the Federal government of a portion of Spring Creek, Becker Creek and the wetlands would allow for the land to be managed in a way that would retain or improve its condition as potential western toad breeding habitat. Although under this alternative two small wetlands on federal parcels F-5 and F-2 could become privately owned, there would be an overall gain of wetlands under federal ownership of approximately 3.5 acres (see Hydrology section for more detailed account of wetland habitat).

Cumulative Effects
Since the implementation of either alternative would not impact western toads or their potential breeding habitat, there is no need to consider the impacts of the project from a cumulative effects standpoint because this alternative would not be an additional impact on western toads.

Conclusion of Effects
There would be no degradation of potential western toad breeding habitat as a result of the implementation of either alternative. Therefore, the implementation of either alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions would have no impact on western toads.

Consistency with Forest Plan and Other Regulations
Because potential breeding habitat would be protected, both alternatives would comply with the Forest Plan direction to manage the habitat of species listed in the Regional Sensitive Species Lists to prevent further declines in populations, which could lead to Federal listing under the Endangered Species Act. These actions would also be consistent with the National Forest Management Act requirements to provide for the diversity of plant and animal communities across the Forest.

Management Indicator Wildlife Species and Others
Northern Goshawk
The northern goshawk is a forest habitat generalist that uses a wide variety of forest age classes, structural conditions and successional stages, inhabiting mixed-conifer forests in much of the northern hemisphere (Reynolds et al. 1992). Nesting habitat appears to be the most critical and limiting factor for goshawks. Throughout North America, goshawk nest sites have consistently been associated with the later stages of succession (mature and old growth forests) having moderate to high tree densities located on the lower one-third or bottom of the hill slope in areas with less than a 40 percent slope (Hayward and Escano 1989, Warren 1990, Squires and Reynolds 1997, Graham et al. 1999). Foraging habitat entails a general relaxation of habitat requirements involving a wider range of forest age classes and structures that provide a relatively open forest environment for unimpeded movement or flight through the understory.

Historic numbers of goshawks were likely higher than they are today because many of the species they prey upon were more numerous. Historically, the Lake Pend Oreille drainage contained a greater proportion of old growth than it does currently. Old growth is important for northern goshawks, not only for prey species habitat, but also for the large trees that provide substrate for their substantial nest structures.
Another factor influencing goshawk habitat is the amount of understory vegetation that this generally mesic (moist) area produces. Because northern goshawks require a combination of adequate overstory to provide prey species and adequate clearance for flight maneuverability, some stands that historically were suitable for foraging are no longer suitable due to an increased density of understory vegetation.

At the landscape scale, at least three suitable nest areas should be provided per home range (5,000 to 6,000 acres) to provide long-term nesting habitat for goshawks. The minimal stand size for goshawk nest sites is considered to be approximately 30 acres with nest sites typically within 0.5 mile of each other (Reynolds et al. 1992). However, based on research conducted in Montana and the subsequent recommendations from the Regional Office, nest stands should be a minimum of 40 acres in size (Clough 2000). The goshawk nesting period is typically from around mid-March through August, with the impacts from disturbance greatest during the courtship, incubation and hatching stages.

Primary risk factors attributed to forest management activities include a reduction in the amount of old forests and their associated structures (e.g., large-diameter snags and logs) along with the transition of older forests from being dominated by shade-intolerant tree species to being dominated by a dense structure of shade-tolerant tree species, primarily due to fire exclusion (Wisdom et al. 2000). This increase in shade-tolerant species has increased the forest’s susceptibility to stand-replacing fires, and has adversely affected habitat suitability by 1) obstructing flight corridors used by goshawks to obtain prey, and 2) reducing herbaceous understory that supports potential prey species (Wisdom et al. 2000).

Another risk factor to goshawks on a local level is human disturbance near nest sites. Disturbance from activities such as heavy equipment operation and timber harvest in close proximity to the nest during the nesting season, particularly during the incubation period can cause nest failure (Boal and Mannan 1994). Recreation activities, such as camping, have also reportedly caused nest failures (Squires and Kennedy 2006). However, there has also been documentation of some level of tolerance by goshawks to human disturbance and cases of repeated nesting attempts by goshawks in an area despite “extreme disturbance” (Squires and Kennedy 2006). Reynolds et al. (1992) recommends managing for road densities as low as possible to minimize disturbance in nest areas.

In 2005, the Regional Forester updated the sensitive species list for the Northern Region and removed the northern goshawk, which up to that point had been designated as a sensitive species (USDA Forest Service 2005). However, later in 2005, the Regional Forester placed the northern goshawk back on the list while a further review and evaluation was ongoing. The northern goshawk was again removed from the R1 Sensitive Species list in 2007 after review of its status was completed. It remains on the list of IPNF management indicator species (MIS).

**Existing Condition**

The parcels of land being considered in this exchange encompass a wide variety of habitat types, aspects, elevations and habitat patch sizes. Consequently, the capability of these parcels to support goshawks varies from area to area. For example, there are areas with steep topography and dry habitat types, which are not considered suitable for goshawk nesting. In addition, fire exclusion, insects, and diseases have changed the species composition and structure of many stands, reducing their suitability for goshawk habitat. The federal parcels contain approximately 1786 acres of capable goshawk nesting habitat. Much of the capable habitat within the parcels consists of either by immature forest stands, younger stands, or mature stands that contain a high
density of smaller stems in the understory. As the secondary canopy layer becomes more congested, these stands lose their effectiveness as goshawk foraging areas. Although there are small patches of potentially suitable goshawk nesting habitat on some of these parcels, particularly parcel 5, 10, and 11, they are not of sufficient size to support nesting goshawks. The privately owned lands immediately adjacent to these three parcels does not contain habitat that would contribute to making large enough patch sizes to be considered suitable for goshawk nesting.

Approximately 777 acres of the non-federal parcel is capable goshawk nesting. The northern portion of the parcel, above Spring Creek road, does not provide nesting habitat due it its steep slopes and low tree density and canopy closure. There is approximately 450 acres of mature habitat south of Spring Creek road, however the density of the stand is too high to currently be considered as suitable goshawk nesting habitat.

Surveys to locate goshawk nest territories within the federal parcels included in the proposed land exchange were conducted during the 2005 and 2007 nesting seasons by qualified wildlife personnel (see Project File). Habitat information, slope, aerial photos, and information on the historic use of the areas by goshawks were used to determine the most appropriate areas to conduct goshawk nest surveys. Broadcast surveys were conducted from 49 calling stations. The surveys elicited no audible responses from goshawks, no goshawks were observed during the surveys and no active or past goshawk nests were located. No goshawk surveys were conducted on the non-federal parcel.

Environmental Consequences

Methodology

The appropriate method to determine the potential impact on goshawks and their habitat is to analyze the change in federal ownership of capable and potentially suitable goshawk habitat as a result of each alternative.

Direct, Indirect and Cumulative Effects of Alternative 1

There would be no direct impacts to northern goshawks from this alternative. Acres of capable goshawk nesting habitat on the non-federal parcel would remain capable after timber harvesting planned within the next five years. However, the non-federal stands that are currently mature would receive an overstory removal harvest, which would convert the stands to an earlier size class. As a result, these acres are unlikely to grow into suitable goshawk nesting habitat until approximately 60 to 80 years from the time of harvest and only then if they are allowed to mature before additional harvest occurs.

The Forest Service currently has no reasonably foreseeable management activities planned on any of the parcels in the scattered lands were they to remain under federal ownership.

In conjunction with other activities occurring in the vicinity of the federal parcels, such as continued private residential development and timber harvest on other private lands, this alternative would likely further impact the ability of these parcels to support northern goshawks.

Direct, Indirect and Cumulative Effects of Alternative 2

There would be no direct impact on northern goshawks as a result of the implementation of Alternative 2. As noted in the discussion of the existing habitat conditions, although there are not entire stands or parcels under federal ownership that would be conveyed to Stimson that are
considered to be currently suitable goshawk nesting habitat, there are small pockets of potentially suitable habitat. Although these pockets are unlikely to support nesting goshawks, they would likely be harvested under Stimson’s five year management plan and would no longer be considered potentially suitable. These areas would remain capable goshawk habitat, but under the shorter timber rotations typically utilized, they would be unlikely to become suitable habitat.

Under this alternative, although the number of acres under federal ownership exchanged in this land exchange would likely be the same or slightly higher than those of non-federal land conveyed; there would be a minimum net increase in mature habitat of approximately 485 acres that would become federally owned. Some of the best habitat with regard to potential goshawk nesting habitat is located on the non-federal parcel in the mature stands south of Spring Creek road in the parcel which would become National Forest System lands under this alternative. Although these mature stands currently appear to be too dense to be considered suitable goshawk nesting stands, if minimal timber harvest were to occur, such as a thin from below, these stands would likely be considered suitable goshawk habitat within 2 to 5 years after harvest. It should be noted that the Forest Service currently has no plans to do any type of timber harvest on this parcel if it were to become federally owned.

In conjunction with other activities occurring in the vicinity of all of the federal and non-federal parcels considered for exchange, such as continued private residential development and timber harvest on other private lands, this alternative would likely maintain or increase the ability of the non-federal parcel that would be acquired to support northern goshawk. This alternative would also likely decrease the ability of the federal parcels that would be conveyed to Stimson to support northern goshawk, although it is unlikely they currently support nesting goshawks.

**Conclusion of Effects**

Minimal patches of suitable goshawk nesting habitat is present within the federal parcels proposed for exchange and none of these small patches are large enough to be considered a suitable goshawk nesting stand. Both alternatives have the possibility of impacting nesting goshawks, although the likelihood is low because of the lack of suitable nesting habitat on the federal parcels and the fact that there has been no documented use by goshawks on these parcels. Timber harvest is proposed by Stimson on lands that would be under their ownership as part of both alternatives and conversely, the Forest Service does not currently have any timber harvest plans on any of the federal parcels proposed in the exchange.

In addition, Samson (2006) concluded that the short-term viability of the northern goshawk in the Northern Region of the Forest Service and on the IPNF is not an issue because:

- No scientific evidence exists that the northern goshawk is decreasing in numbers.
- Increases in the extent and connectivity of forested habitat have occurred since European settlement.
- Well-distributed and abundant northern goshawk habitat exists on today’s landscape.
- Level of timber harvest in the Northern Region (in 2008, 5,874 ha of 9,045,255 ha or 0.06% of the forested landscape) and IPNF (809 ha of 999,733 ha or 0.08% of the forested landscape) is insignificant.
- Suppression of natural ecological processes has increased and continues to increase amounts of northern goshawk habitat.
In 1998, the U.S. Fish and Wildlife Service (USDI Fish and Wildlife Service 1998) concluded that the northern goshawk was not warranted for listing as a threatened or endangered species in the western United States because, based on the best available information:

- There was no evidence of a declining population trend for goshawks in the western U.S.
- There was no evidence that goshawk habitat is limiting the population, or that significant curtailment of the species’ habitat or range is occurring.
- The goshawk continues to be well-distributed throughout its historical range.
- There are no significant areas of extirpation.
- While the goshawk uses stands of mature and older forests, it is not dependent on old-growth, and uses a variety of forest habitats in meeting its life history requirements.

Consequently, the implementation of either alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions, may impact individuals or habitat, but would not indicate a local or regional change in habitat quality or population status.

**Consistency with Forest Plan and Other Regulations**

Both alternatives comply with the Forest Plan direction to manage the habitat of species listed in the Regional Sensitive Species List to prevent further declines in populations, which could lead to Federal listing under the Endangered Species Act (USDA Forest Service 1987). These actions would also be consistent with the National Forest Management Act requirements to provide for a diversity of plant and animal communities across the Forest.

The IPNF Forest Plan (USDA Forest Service 1987) selected the northern goshawk as a management indicator species for old growth habitats and established guidance for managing old growth to provide for viable populations of this species. It states, “Approximately 10 percent of the Forest will be maintained in old growth as needed to provide for viable populations of old growth dependent and indicator management species.” To obtain the desired distribution, each designated old growth unit would be managed to maintain approximately five percent old growth where it exists. Since there are no old growth stands in the federal parcels being considered for exchange, there would be no change in the amount of old growth. Therefore, either alternative would be in compliance with the Forest Plan standard for old growth.

**Pileated Woodpecker**

Pileated woodpeckers are relatively common in both cut and uncut mid-elevation forests. They appear to do well in a matrix of forest types (Hutto 1995). However, since foraging habitat represents a wider ecological range of forest age structure, nesting habitat is considered the most critical and limiting element for pileated woodpeckers.

The pileated woodpecker was designated as a management indicator species (MIS) because its highest densities occur in old-growth forests due to their need for larger dead trees for nesting (Bull et al. 1990). For nesting, they have specific requirements of large trees in relatively uncut stands. Nest cavities are usually located in large diameter trees more than 30 feet above the ground, level with the canopy of the surrounding forest. (Warren 1990). Nesting habitat for pileated woodpeckers in the northern Rocky Mountains most commonly occurs in forest stands with live or dead western larch, Douglas-fir, ponderosa pine and cottonwoods greater than 20 inches in diameter. New nest cavities are excavated each year in stands of approximately 50 to 100 acres of mature/old forest habitat with a relatively closed canopy (Warren 1990).
Primary risk factors include a reduction in the amount of old forests and its associated structures (e.g., large-diameter snags and logs) along with the transition of older forests from being dominated by shade-intolerant tree species to being dominated by a dense structure of shade-tolerant tree species, primarily due to fire exclusion (Wisdom et al. 2000).

**Existing Condition**
The change in species composition resulting from fire exclusion has slowly and methodically replaced such species as ponderosa pine, white pine and western larch, trending stands toward smaller and younger size and age classes that are more susceptible to insects and disease before reaching maturity. Consequently, snag production is shifting from the larger, longer-lived species to smaller, shorter-lived species. Currently, there is approximately 147 acres of mature forested habitat within the federal parcels included in the exchange. However, these acres are represented by five somewhat small, isolated stands of mature habitat in parcels F-5, F-10 and F-11 that are generally surrounded by stands that have been harvested and are younger age classes and in many cases have a very open canopy. As a result, these acres of mature habitat are not large enough blocks to be considered suitable as pileated woodpecker nesting habitat and are unlikely to be supporting nesting pileated woodpeckers. On the non-federal lands in this exchange, there is approximately 632 acres of mature forested habitat. Of these acres, there is a contiguous block of mature habitat that is approximately 450 acres in size that contains the habitat parameters considered to be potentially suitable as pileated woodpecker nesting habitat. There are no old growth stands within any of the parcels proposed in the exchange. There are no documented sightings of pileated woodpecker on any of the parcels included in the exchange.

**Environmental Consequences**

**Methodology**
The appropriate method to determine the potential impact on pileated woodpeckers and their habitat is to analyze the change in federal ownership of pileated woodpecker nesting habitat as a result of each alternative.

**Direct, Indirect and Cumulative Effects of Alternative 1**
There would be no direct impacts to pileated woodpeckers from this alternative. However, the contiguous block of 450 acres of mature habitat on the non-federal parcel that is considered potentially suitable nesting habitat would receive an overstory removal harvest, which would convert the area to a smaller size class. As a result, this area would not be considered suitable pileated woodpecker nesting habitat for approximately 80 to 100 years from the time of harvest and only if they are allowed to mature before additional harvest occurs.

The Forest Service currently has no reasonably foreseeable management activities planned on any of the federal parcels. Therefore, mature forested habitat on those parcels would not be impacted.

In conjunction with other activities occurring in the vicinity of the federal parcels such as continued private residential development and timber harvest on other private lands, this alternative would likely impact the ability of the areas in and around the federal parcels proposed in the exchange to support nesting pileated woodpeckers.

**Direct, Indirect and Cumulative Effects of Alternative 2**
There would be no direct impact on pileated woodpeckers as a result of the implementation of Alternative 2. As noted in the discussion of the existing habitat conditions, the acres of mature
habitat on the federal parcels are not within large enough blocks of mature habitat to be considered to be currently suitable pileated woodpecker nesting habitat. Although these acres of mature habitat do not likely support nesting pileated woodpeckers, they would be harvested under Stimson’s five year management plan and would be converted to a younger size class. These areas would remain capable pileated woodpecker habitat, but under the shorter timber rotations typically utilized by private timber companies, they would be unlikely to become suitable habitat.

Although approximately an equal number of acres are expected to be exchanged under this alternative, there would be a minimum net increase of approximately 485 acres in mature habitat that would become federally owned, including the contiguous block of approximately 450 acres that is potentially suitable pileated woodpecker nesting habitat currently. As a result, the 450 acre block of mature habitat that is currently proposed for an overstory timber harvest by Stimson within the next five years would instead be under federal ownership and management actions on these acres could be taken that benefit pileated woodpeckers (e.g. no timber harvest or limited timber harvest that retains suitability of these acres as pileated woodpecker nesting habitat and snag protection). However, the Forest Service currently has no plans to do any type of timber harvest on this parcel if it were to become federally owned.

In conjunction with other activities occurring in the vicinity of all of the federal and non-federal parcels considered for exchange, such as continued private residential development and timber harvest on other private lands, this alternative would likely maintain or increase the ability of the non-federal parcel that would become National Forest System lands to support nesting pileated woodpeckers. This alternative would likely decrease the ability of the federal parcels that would be conveyed to Stimson to support nesting pileated woodpeckers.

**Conclusion of Effects**

Neither alternative would transfer any federal acres of allocated old growth to private ownership and no acres of old growth would become federal land.

Under Alternative 1, there would be no exchange of federal or non-federal parcels. Based on the proposed Stimson management plans, approximately 450 acres of potentially suitable pileated woodpecker nesting habitat would continue to be privately owned and would be harvested. Timber harvest would result in a conversion to a younger age class stand that would no longer be considered potentially suitable habitat. There are no proposed management actions on the federal parcels under this alternative.

Under Alternative 2, if all of the stands of mature forest on the federal parcels were transferred to private ownership, there would be a net increase in federal ownership of approximately 485 acres of mature habitat, including the contiguous block of 450 acres of habitat that is potentially suitable pileated woodpecker habitat currently. However, there is likely to be a larger net increase in federal ownership of mature habitat because it is likely that not all of the currently federal parcels containing mature habitat would ultimately be exchanged. Under this alternative, Stimson management plans indicate that the mature acres they would acquire would receive a level of timber harvest that would reduce their ability to support nesting pileated woodpeckers. However, as discussed previously, due to the relatively small size of these mature acres, they are unlikely to be currently supporting nesting pileated woodpeckers.

In addition, Samson (2006) concluded that the short-term viability of the pileated woodpecker in the Northern Region of the Forest Service and on the IPNF is not an issue because:

- No scientific evidence exists that the pileated woodpecker is decreasing in numbers.
• Increases in the extent and connectivity of forested habitat have occurred since European settlement.
• Well-distributed and abundant pileated woodpecker habitat exists on today’s landscape.
• Level of timber harvest in the Northern Region (in 2008, 5,874 ha of 9,045,255 ha or 0.06% of the forested landscape) and IPNF (809 ha of 999,733 ha or 0.08% of the forested landscape) is insignificant.

Consequently, the implementation of either alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions may impact individuals or habitat, but would not indicate a local or regional change in habitat quality or population status.

Consistency with Forest Plan and Other Regulations

The pileated woodpecker was selected as a MIS because of their need for old growth habitat. The Forest Plan (1987) directs that approximately 10 percent of the Forest be maintained in old growth as needed to provide for viable populations of old growth MIS. Since there are no old growth stands in the analysis area that would be adversely affected by project activities, neither alternative would likely indicate a local or regional change in population status or distribution. Therefore, these actions would also be consistent with the National Forest Management Act requirements to provide for a diversity of plant and animal communities.

Rocky Mountain Elk

Rocky Mountain elk are widely distributed within the Idaho Panhandle National Forests and move seasonally in response to weather patterns and food availability. Because of their greater foraging ability and mobility, elk use higher elevations more than deer during the winter period. During the summer period, there is a general relaxation of habitat requirements and a broader use of available habitats. Elk are regarded as focal species within the project area because of their high social, cultural, and economic importance.

Early records indicate that Rocky Mountain elk occurred throughout most of Idaho. However, large herds were apparently absent from the narrow, northern portion of the state (Thomas and Toweill 1982). The discovery of gold in Pierce, Idaho in 1860 and the subsequent settlement and exploitation of the area led to a reduction in elk numbers down to a few isolated herds in the State. A translocation program was initiated in 1915 and continued through 1946. In 1938, the Bonner Sports Association (later renamed Bonner County Sportsman Association) restocked areas of northern Idaho with elk from Yellowstone National Park. Today, elk populations exceed their distribution and population levels of a century ago (Thomas and Toweill 1982, IDFG 2004).

Risk factors for elk include a high degree of roads that increases the vulnerability of elk to poaching, stress, hunting loss, accidents and displacement (USDI Bureau of Land Management and USDA Forest Service 1997) and the loss of winter range.

Roads in elk habitat that are open for public use with motorized vehicles have a significant influence on elk by reducing the use of adjacent habitat (Leege 1984). Despite these lower elk densities along open roads, there is a much higher harvest rate in these areas. Almost twice as many elk are killed within a quarter of a mile of open roads as compared to areas further from roads (Leege 1984). Accordingly, the potential of an area to be used by elk increases as road densities decrease (Leege 1984).
Environmental Assessment

**Existing Condition**

The federal parcels of land being considered in this exchange encompass a wide variety of habitat types, aspects, elevations and habitat patch sizes. Consequently, the capability of these parcels to support elk varies from area to area and season to season. However, in many cases the small size of the federal parcels and the existing condition of the land around them does not translate to habitat characteristics that would support large elk numbers. Some of these smaller parcels may act as a “refugia” for small bands of elk. Past activities or events that have shaped the landscape and influenced habitat for Rocky Mountain elk within the analysis area include road construction, the development of private land, fire suppression and timber harvest. Due to the generally lower elevation of these parcels along with their aspects, all but a few small patches would be considered potential elk winter range.

All of the approximately 922 acres of the non-federal parcel is considered to be entirely within elk winter range based on the aspect and elevation of the parcel.

The federal parcels are scattered throughout the Idaho Department of Fish and Game’s Game Management Unit 2, with the exception of parcel F-10 that is in Game Management Unit 1. Game Management Unit 2 covers the area to the west of Lake Pend Oreille, south of the Pend Oreille River, east of the Washington state line and north of the Spokane River. Federal parcel F-10 and the non-federal parcel are in Game Management Unit 1. Game Management Unit 1 covers the entire northern portion of the Idaho panhandle from the north shore of Lake Pend Oreille to the border with Canada. The elk population in Game Management Unit 1, and to a lesser degree Game Management Unit 2, has experienced substantial growth during the last decade and herd sizes are expanding (IDFG 2007).

**Environmental Consequences**

**Methodology**

The appropriate method to determine the potential impact on elk and their habitat is to analyze the change in federal ownership of winter range and trends in road densities as a result of each alternative.

**Direct, Indirect and Cumulative Effects of Alternative 1**

This alternative would have no impacts on elk or big game winter range because there would be no new management activities that would impact the ability of the federal parcels to act as winter range. In addition, there are no reasonably foreseeable actions that would require additional road construction under this alternative. Proposed timber harvesting activities on the non-federal parcel are not expected to cause a disturbance to elk because the proposed activities would likely take place when elk would not be present. These activities would also not impact the suitability of the parcel as winter range or increase road densities beyond the existing condition. No road construction or timber harvest is currently planned on any of the federal parcels; therefore the areas that act as big game winter range would continue to do so.

Since Alternative 1 would have no impact on elk or their habitat, there is no need to consider the impacts from a cumulative effects standpoint because this alternative would not be an additional impact on elk.

**Direct, Indirect and Cumulative Effects of Alternative 2**

Because the land exchange is expected to be close to an equal exchange of acres, there would be no loss of acres of elk winter range under this alternative. The non-federal parcel that would
become National Forest System lands would increase federal ownership of elk winter range in an area where elk herds are present. Management actions could be taken on this non-federal parcel that benefit wintering elk (e.g. brush burning to stimulate browse or reduce motorized road densities to increase habitat security). However, the Forest Service currently has no management actions planned should this parcel be acquired.

Based on proposed Stimson management plans, the federal parcels that would be conveyed to private ownership would not likely lose their ability to act as winter range from a forage standpoint to support small bands of elk that may utilize these refugia. However, the increase in road densities proposed under Stimson’s plans on many of the parcels would increase the potential for disturbance to elk and would have an impact on the security of these parcels, which would decrease their ability to support elk.

In conjunction with other activities occurring in the vicinity of both the federal and non-federal parcels considered for exchange, such as continued private residential development and timber harvest on other private lands, this alternative would likely maintain or increase the ability of the non-federal parcel that would become National Forest System lands to support elk and would likely decrease the ability of the federal parcels that would be conveyed to privately ownership to support elk.

**Conclusion of Effects**

Alternative 1 would have no increase road density or result in the loss of winter range for elk. Therefore the implementation of Alternative 1 in conjunction with the past actions, ongoing activities and reasonably foreseeable actions would have no impact on elk.

Although the implementation of Alternative 2 would not result in a meaningful change to foraging opportunities for wintering elk, there would be an increase in disturbance potential for elk on the federal parcels that would become privately owned due to an increase in road densities on many of the parcels. Therefore, the implementation of this alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions may impact individuals and habitat, but will not indicate a local or regional change in habitat quality or population status.

**Consistency with Forest Plan and Other Regulations**

Both alternatives are consistent with the Forest Plan standards and guidelines dealing with the management of big game species (USDA Forest Service 1987, p. II-1, 6). Elk are not considered a Management Indicator Species on the North Zone of the IPNF, and therefore there are no Forest Plan standards regarding elk or their habitat. Elk are analyzed and discussed because they have important social and economic value to the surrounding communities. There are no other laws or regulations specific to elk management.

**Threatened, Endangered and Sensitive Fish Species**

**Bull Trout and Westslope Cutthroat Trout**

Although bull trout and westslope cutthroat trout utilize streams differently based on their unique natural histories and biological requirements, considerable overlap occurs in the habitat use of these species. Bull trout are fall spawners and westslope cutthroat trout are spring spawners. However, both species require cold, clear streams with a mixture of riffles and deep pools in order to sustain their populations. The implementation of either alternative would potentially affect
these species similarly. Therefore, the impacts to bull trout and westslope cutthroat trout from the proposed land exchange will be analyzed collectively, with any differences discussed.

**Bull Trout**

Bull trout are listed under the Endangered Species Act as a threatened species. They appear to have more specific habitat requirements than other salmonids (Rieman and McIntyre 1993). Habitat characteristics including water temperature, stream size, substrate composition, cover and hydraulic complexity have been associated with distribution and abundance (Jakober 1995, Rieman and McIntyre 1993, Pratt 1985). In streams, all life stages of bull trout are associated with some form of cover such as large woody debris, undercut banks, boulders and pools (Fraley and Shepard 1989, Hoelscher and Bjornn 1989, Thomas 1992). Maintaining lateral and instream habitat complexity, in association with channel stability, can best provide persistence of bull trout over time (Karr and Freemark 1983, Karr and Dudley 1981, Gorman and Karr 1978).

Stream temperature (below 15 ° Celsius; Goetz 1989) and substrate composition are important characteristics of suitable bull trout habitats. Bull trout have repeatedly been associated with the coldest stream reaches within basins. The lower limits of many strong bull trout distributions mapped by Lee et al. (1997) correspond to a mean annual air temperature of about 4 degrees Celsius (ranging from 3 to 6 degrees Celsius) and should equate to ground water temperatures of about 5 to 10 degrees Celsius (Meisner 1990). Water temperature can be strongly influenced by land management activities (Henjum et al. 1994).

Vegetation can strongly influence the habitat conditions of bull trout streams. Canopy cover adjacent to streams provides shade and helps to maintain cooler water temperatures during the summer months. During the winter, conifers can also reduce the risk of freezing and the formation of anchor ice by providing insulation (PBTTAT 1998). Large trees that fall into the stream channel can benefit habitat conditions by creating pools, providing cover and shade, introducing nutrients, contributing to channel stability and dissipating stream energy (Murphy and Meehan 1991).

Bull trout are fall spawners and their preferred spawning habitat generally consists of lower gradient stream reaches with loose, clean gravel (Fraley and Shepard 1989). However, if the substrate and habitat attributes are suitable, spawning can occur in steeper reaches.

Bull trout are vulnerable to human-induced factors that increase water temperature and sediment loads, change flow regimes, block migration routes, and establish non-native trout, particularly brook trout (Behnke 2002).

**Existing Condition**

Bull trout are known to reside in the Pend Oreille Basin. The Pend Oreille Basin includes Bayview Creek (Federal parcel 5) and Spring Creek (non-federal parcel), which are the only potentially fish bearing streams within any of the Federal or non-federal parcels in the land exchange. Bull trout in the Lake Pend Oreille watershed appear to be entirely adfluvial (PBTTAT 1998). The only stream within the any of the Federal or non-federal parcels analyzed with documented bull trout use in Spring Creek, which is a tributary of Lightning Creek and flows through the non-federal parcel that is proposed to become National Forest System lands. There are only limited reports of juvenile bull trout in Spring Creek from the early 1980s and there has been no documented use of Spring Creek by bull trout since. The Lightning Creek watershed as a whole typically has around the third highest number of bull trout reds in the Lake Pend Oreille...
basin during annual surveys (IDFG, unpublished report) and likely plays an important role in the recovery of the species.

There are no other streams within the Federal and non-federal land exchange parcels with the appropriate habitat characteristics that are accessible to bull trout or that have had documented use by bull trout. The proposed exchange does not contain streams designated as critical habitat for bull trout.

**Westslope Cutthroat Trout**

Westslope cutthroat trout are listed as “sensitive” by Region 1 of the USDA Forest Service and are listed as a species of concern by the State of Idaho. In 2000, the U.S. Fish and Wildlife Service determined that westslope cutthroat trout did not warrant listing as a threatened species (USDI Fish and Wildlife Service 2000). In 2003, Fish and Wildlife Service reconsidered the listing of westslope cutthroat trout and again determined that their listing was not warranted (USDI Fish and Wildlife Service 2003b).

The preferred habitat of westslope cutthroat trout is cold, clear streams with rocky, silt-free riffles for spawning and slow, deep pools for feeding, resting, and over-wintering (Reel et al. 1989). Pools are a particularly important habitat component as cutthroat trout occupy pool habitat more than 70 percent of the time (Mesa 1991). Other key features of westslope cutthroat trout habitat are large woody debris (LWD) for persistent cover and habitat diversity, as well as small headwater streams for spawning and early rearing. Westslope cutthroat trout are not lakeshore spawners.

The primary cause of the decline in westslope cutthroat is considered to be habitat loss and degradation (Rieman and Apperson 1989). Competition, predation by non-native species, genetic introgression and overfishing has also contributed to the decline of westslope cutthroat trout populations (McIntyre and Rieman 1995). Westslope cutthroat trout have been negatively affected by the presence of introduced eastern brook trout. Brook trout out-compete westslope cutthroat trout in areas where habitat is degraded (Behnke 1992).

**Existing Condition**

Population status reviews of the westslope cutthroat trout (WCT) within the United States determined that currently westslope cutthroat occupy an estimated 59% of the historically occupied habitat and in Idaho populations occupy almost 96% of the historical range (Shepard et al 2003). IPNF Forest Plan monitoring reports (2003, 2004 and 2005-2006) indicate westslope cutthroat trout populations appear to be stable or increasing throughout most of northern Idaho.

Within the parcels being considered for exchange, westslope cutthroat trout have been documented in Spring Creek and an unknown species of cutthroat trout have been documented in Bayview Creek (see Project File). There are no other fish bearing streams within any of the Federal and non-federal parcels being considered for exchange.

**Existing Habitat Condition**

***Spring Creek (Non-Federal Parcel)***

Spring Creek is a spring fed tributary in lower Lightning Creek and is the primary source of water for the town of Clark Fork, which maintains a water diversion facility on the stream. Approximately the first five miles of the steam are located on private land in a relatively low gradient channel that meanders through a modified riparian area with several beaver ponds and
The stream segment proposed to become managed by the Forest Service under this land exchange is approximately 0.50 mile in length and has a culvert that acts as a fish passage barrier. The upper portions of the stream are higher gradient reaches located on National Forest System lands that have been relatively unaltered by past management activities. The water temperature of Spring Creek appears to be suitable for bull trout (PBTTAT 1998).

As discussed above, juvenile bull trout were previously documented in Spring Creek. Spring Creek is listed as a moderate priority for bull trout restoration in the Lake Pend Oreille watershed largely because of the high degree of private ownership and the lack of documentation of bull trout spawning or use of the stream in the past 25 years (PBTTAT 1998). Westslope cutthroat trout, rainbow trout, brook trout (particularly in the upper reaches) and kokanee have also all been documented in Spring Creek (see Project File).

**Bayview Creek (Parcel F-5)**

Bayview Creek is a perennial stream, approximately four miles in length, which runs through a well incised draw flowing into the southern most portion of Lake Pend Oreille at the town of Bayview. Approximately 60 percent of the stream is on private land. Approximately 0.50 mile of Bayview Creek is located on Federal land where the canopy is relatively closed and contains intact riparian vegetation.

Bayview Creek is a fish bearing stream with a resident population of cutthroat trout, although it is unknown if they are westslope cutthroat trout. District records indicate that there is a fish migration barrier to Lake Pend Oreille from Bayview Creek (see Project File).

**Environmental Consequences**

**Methodology**

The potential effects on bull trout and westslope cutthroat trout were determined by the net change in Federal ownership of streams with the potential to support these fisheries species.

**Direct, Indirect and Cumulative Effects of Alternative 1**

This alternative would have no direct impacts on bull trout, westslope cutthroat trout or their habitat and there would be no change in the amount of stream habitat being managed by either entity involved in the land exchange. However, the non-federal parcel that contains a segment of Spring Creek would remain as such therefore, the culvert currently acting as a fish passage barrier, would likely continue into the future.

Since Alternative 1 would have no impact on bull trout, westslope cutthroat trout or their habitat beyond the existing condition, there is no need to consider the impacts from a cumulative effects standpoint because this alternative would not be an additional impact on bull trout.

**Direct, Indirect and Cumulative Effects of Alternative 2**

There would be no direct impact to bull trout or westslope cutthroat trout from the implementation of Alternative 2. However, the acquisition by the Federal government of approximately 0.50 mile of Spring Creek that is currently privately owned would allow for the land to be managed in a way that would retain or improve the stream condition with respect to its ability to support bull trout and westslope cutthroat trout (e.g. potentially remove or reconstruct the culvert that is currently acting as a fish passage barrier, manage the riparian area to protect and enhance the riparian management objectives.)
In addition, although the proposed action would convey approximately 0.50 mile of Bayview Creek that contains an unknown species of cutthroat trout to private ownership, it would also result in the Federal ownership of approximately 0.50 mile of Spring Creek, which has documented use by westslope cutthroat trout. As a result there would be no change in the miles of stream habitat under Federal ownership that supports cutthroat trout. However, streams under Federal ownership typically receive a higher degree of protection than streams on privately owned land due to the implementation of additional riparian protection measures on Federal land such as the Inland Native Fish Strategy (INFS 1995). Therefore, the change in ownership of stream segments supporting cutthroat trout would likely result in somewhat less protection for the habitat and trout in the segment of Bayview Creek that would become privately owned and more protection for the habitat and trout in the segment of Spring Creek that would become National Forest System lands. These impacts would not be expected to have a substantial impact on cutthroat trout because of the minimum standards that either entity would be required to follow regarding stream habitat protection.

Since the implementation of Alternative 2 would have no impact on bull trout or their habitat, there is no need to consider the impacts from a cumulative effects standpoint because this alternative would not be an additional impact on bull trout.

In conjunction with private land development and timber harvest occurring in the vicinity of the Federal and non-federal parcels containing fish bearing streams (Spring Creek and Bayview Creek), this alternative would likely maintain or increase the ability of the non-federal parcel acquired by the National Forest to support westslope cutthroat trout and would likely maintain or slightly decrease the ability of the Federal parcel that would be conveyed to privately ownership to support cutthroat trout.

**Conclusion of Effects**

Alternative 1 would not result in a decrease in stream segments under Federal ownership or result in the degradation of stream habitat for bull trout or westslope cutthroat trout. The effects determination of implementing Alternative 1 in conjunction with the past actions, ongoing activities and reasonably foreseeable actions on bull trout can be found in the Fish Biological Assessment. There would be no impact on westslope cutthroat trout.

The implementation of Alternative 2 would result in an increase in the miles of stream habitat under Federal ownership that could potentially be used by bull trout. However, this stream (Spring Creek) has not had documented use by bull trout for approximately 25 years. The effects determinations for the final proposed action can be found in the Fish Biological Assessment.

Although the implementation of Alternative 2 would not result in a change in the amount of stream habitat for westslope cutthroat trout or in a substantial change to their stream habitat, a segment of Bayview Creek would become privately owned and would likely be subject to lesser protection, which could impact individuals or their habitat. Therefore, the implementation of this alternative, in conjunction with the past actions, ongoing activities and reasonably foreseeable actions may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species for westslope cutthroat trout.

**Consistency with Forest Plan and Other Regulations**

Both alternatives are consistent with the Forest Plan direction, as amended by the Inland Native Fish Strategy, to manage the habitat of species listed under the Endangered Species Act (USDA
Forest Service 1987, p. II-6) and direction provided by the recovery plans of listed species. As discussed above, both alternatives would have no effect on any federally listed threatened, endangered or proposed wildlife species or designated critical habitat.

Both alternatives would also consistent with the Forest Plan direction to manage the habitat of species listed in the Regional Sensitive Species List to prevent further declines in populations, which could lead to Federal listing under the Endangered Species Act (USDA Forest Service 1987, p. II-28). Neither alternative would trend any sensitive fish species toward the need for Federal listing. Therefore, both alternatives would also be consistent with the National Forest Management Act requirements to provide for the diversity of plant and animal communities across of the Forest. Consequently, the implementation of either alternative would be in compliance with the Forest Plan.

**Summary of Effects to Wildlife and Fish Species**

Table 11. Summary of effects by alternative for all wildlife and fish species considered, including those not analyzed in detail. Determinations are given in language established by the regulatory framework.

<table>
<thead>
<tr>
<th>Species</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threatened and Endangered Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grizzly Bear</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Woodland Caribou</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gray Wolf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada Lynx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kootenai River White Sturgeon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bull Trout</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sensitive Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bald Eagle</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Flammulated Owl</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
<tr>
<td>Black-backed Woodpecker</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Black Swift</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Harlequin Duck</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Peregrine Falcon</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Pygmy Nuthatch</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
<tr>
<td>Common Loon</td>
<td>No impact</td>
<td>No impact</td>
</tr>
</tbody>
</table>
### Hope Sagle Land Exchange

<table>
<thead>
<tr>
<th>Species</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fisher</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
<tr>
<td>Wolverine</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Northern Bog Lemming</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Townsend’s Big-eared Bat</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Fringed Myotis</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
<tr>
<td>Coeur d’Alene Salamander</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Western Toad</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Burbot</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Interior Redband Trout</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Westslope Cutthroat Trout</td>
<td>No impact</td>
<td>May impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species.</td>
</tr>
</tbody>
</table>

#### Management Indicator Species and Others

<table>
<thead>
<tr>
<th>Species</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Goshawk</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
<tr>
<td>Pileated Woodpecker</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
<tr>
<td>American Marten</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
<tr>
<td>White-tailed Deer</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Rocky Mountain Elk</td>
<td>No impact</td>
<td>May impact individuals and habitat, but would not indicate a local or regional change in habitat quality or population status</td>
</tr>
</tbody>
</table>
Social and Economic Environment

Hazardous Materials

Regulatory Framework
The principle regulatory direction applicable to hazardous materials on the Idaho Panhandle National Forests (IPNF) include

- Compliance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Forest Service Manual Direction (FSM 2160, Hazardous Materials Management) is required in any land transaction.
- CERCLA, as amended, requires that Federal agencies provide information and certain warranties concerning the presence of hazardous materials on conveyed parcels. The same procedures are used for inspection of private lands proposed for acquisition. The Forest Service follows the required “Transaction Screening Process for Land Adjustments”; as outlined in EM-2160-2, dated September 1999. The goal of this process is to identify any actual or possible contamination from hazardous substances, petroleum products, or other contaminants so as to ensure that the Forest Service does not unknowingly acquire or convey contaminated property (project file).
- Section 120 (h) of the Superfund Amendment and Reauthorization Act of 1986 (SARA) required physical inspection and examination of records for federal parcels to be conveyed.

Existing Condition
All parcels to be acquired and conveyed by the IPNF have been inspected by Forest Service personnel for the presence of hazardous substances, and have been certified in accordance with the Land Transaction Screening Process. There is no evidence of release, storage, or disposal of hazardous substances or petroleum products.

Environmental Consequences

Direct and Indirect and Cumulative Effects of Alternative 1 and 2
Since there is no evidence of release, storage, or disposal of hazardous substances or petroleum products for one year or more on any of the federal or non-federal parcels there would be no effect with the implementation of either alternative. Because the implementation of either alternative would result in no effect regarding hazardous or solid wastes, there is no need to consider impacts from cumulative effects because the proposed land exchange would not create an additional impact.

Consistency with Forest Plan and Other Regulations
Both alternatives are consistent with the Forest Plan direction for land adjustments, Forest Service Manual Direction (FSM 2160, Hazardous Materials Management), and Section 120 (h) of the Superfund Amendment and Reauthorization Act of 1986 (SARA). It is also compliant with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Cultural Resource
The objective of this subsection is to identify heritage resources or properties on NF parcels to convey that may be adversely affected. The analysis area boundary is limited to the Federal parcels involved in the Proposed Land Exchange.
Regulatory Framework
The principle regulatory direction applicable to cultural resources on the Idaho Panhandle National Forests (IPNF) include:

- 36 CFR 63 and 800
- National Forest Service Manual 2360
- Region 1 Programmatic Agreement with Idaho State Historic Preservation Office (ISHPO) and the Advisory Council on Historic Preservation (ACHP).

Existing Condition
All federal parcels proposed for exchange have completed heritage resource inventories that are filed at the IPNF Supervisor’s Office. The Forest Archaeologist has reviewed all Heritage Resource Inventory Reports for compliance with the NHPA of 1966, Protection of Historic Properties, and Programmatic Memorandums of Agreement. The Idaho State Historic Preservation Office (SHPO) has received copies of the Heritage Resource Inventory Reports.

Environmental Consequences
There are no sites eligible for the National Register of Historic Places on the federal parcels to convey. SHPO has concurred with the IPNF determination (PR).

Land Uses
This section discloses specific parcel information on consequences and curative actions by the Proposed Land Exchange related to “land uses”. Specific categories addressed include: 1) Public Access Considerations; 2) Curative Action; 3) Land Uses; and 4) Cost Share Roads. Identified curative actions that would occur if the land exchange should happen are listed by parcel in Table 12 and Table 12. The curative action identified is intended to protect land use rights, comply with existing laws, regulations, and policies and show benefits/liabilities to the Forest Service and Stimson Lumber Company.

The analysis area boundary is each parcel with land use considerations to acquire and convey.

Existing Condition
Federal and non-federal parcels included in this exchange and specific land use considerations associated with these parcels are described in Table 12 and Table 13, as well as the narrative that follows. These tables identify the land use considerations that apply to all parcels within the proposed land exchange.
**Table 12. Federal parcels and land use considerations**

<table>
<thead>
<tr>
<th>Land Uses</th>
<th>Specifics</th>
<th>Curative Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parcel F-1: T. 55 N., R. 2 W., sec. 28, W½SE¼, SE½SE¼.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Legal and Physical Access</td>
<td>Stimson has property adjacent to this parcel to obtain access.</td>
<td>Would eliminate need for the Forest Service to acquire an access easement to an isolated NFS parcel</td>
</tr>
<tr>
<td><strong>Parcel F-2: T. 54 N., R. 4 W., sec. 5, SW¼; sec. 6, lots 2 thru 4, inclusive, SE½NE¼, E½SE¼.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal and Physical Access</td>
<td>FS Road 1036 access this parcel. This road is currently gated and locked.</td>
<td>Forest Service would eliminate need to administer the R/W. This road would be assigned to SLC.</td>
</tr>
<tr>
<td>Water Rights</td>
<td>The State of Idaho has appropriated three water rights under the law of the State of Idaho. These rights do not grant any right-of-ways or easements across the NFS or the land of another.</td>
<td>N/A</td>
</tr>
<tr>
<td>Special Use Permit</td>
<td>One water right holder has authorization for a water transmission line.</td>
<td>Due to the proposed land exchange, a perpetual easement would be negotiated between the non-federal party and permit holder. The Forest Service shall subsequently terminate the special use permit.</td>
</tr>
<tr>
<td>Unrecorded Use</td>
<td>An unauthorized road used to access several residential dwellings exists within this parcel. An unauthorized buried water transmission line serving a water right holder.</td>
<td>A perpetual easement would be negotiated between non-federal party and the homeowners for access under the land exchange. Water right holder needs to first to determine location of buried water line prior to LEX being finalized to have a perpetual easement negotiated between non-federal party and the water right holder.</td>
</tr>
<tr>
<td><strong>Parcel F-3: T. 54 N., R. 2 W., sec. 10, E⅔NW¼.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Legal and Physical Access</td>
<td>Stimson has property adjacent to this parcel to obtain access.</td>
<td>Would eliminate the need for the Forest Service to acquire an access easement to an isolated NFS parcel</td>
</tr>
<tr>
<td>Water Right</td>
<td>The State of Idaho has appropriated one water right under the law of the State of Idaho. This right does not grant any right-of-way or easement across the NFS or the land of another.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Parcel F-4: T. 54 N., R. 2 W., sec. 10, NE½SE¼.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Legal and Physical Access</td>
<td>Stimson has property adjacent to this parcel to obtain access.</td>
<td>Would eliminate the need for the Forest Service to acquire an access easement to an isolated NFS parcel.</td>
</tr>
<tr>
<td>Land Uses</td>
<td>Specifics</td>
<td>Curative Action</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>FS Developed Trail</td>
<td>Forest Service trail 230 is located within this parcel.</td>
<td>This trail would be reserved to the U.S. Government.</td>
</tr>
<tr>
<td>Parcel F-5: T. 54 N., R. 2 W., sec. 15, lots 5, 7, 8,10; sec. 22, lots 1, 2 (less SW¼ of lot 2) NE¼, E½NW¼.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal and Physical Access</td>
<td>Forest Service Roads 2734A and 2734A-1 (aka FS Roads 2634A and 2634A-1) exist within this parcel; if this parcel is exchanged there is a need to reserve the rights on these system roads</td>
<td>Forest Service Roads 2734A and 2734A-1 would be reserved to the U.S. Government.</td>
</tr>
<tr>
<td>Special Use Permit</td>
<td>There is an existing authorization for electrical utility uses with Kootenai Electric Cooperative across NFS land.</td>
<td>Due to the proposed land exchange, a perpetual easement would be negotiated between the non-federal party and the homeowners under the land exchange.</td>
</tr>
<tr>
<td>Parcel F-7: T. 54 N., R. 4 W., sec. 30, SE¼.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal and Physical Access / Easement</td>
<td>The following roads are included in existing road easements: State of Idaho DOT easement Highway 41 recorded on 9/13/1993; Bonner County's Spirit Lake Road 549 road easement recorded on 11/28/1988.</td>
<td>N/A</td>
</tr>
<tr>
<td>Special Use Permits</td>
<td>There are two existing authorizations for electrical utility uses with Avista Utilities and Inland Power and Light across NFS land.</td>
<td>Due to the proposed land exchange, perpetual easements would be negotiated between the non-federal party and permit holders. The Forest Service shall subsequently terminate the portions of the special use permits which affects F-7 special use permits.</td>
</tr>
<tr>
<td>Unrecorded Use</td>
<td>An unauthorized buried telephone cable line exists.</td>
<td>Due to the proposed land exchange, a perpetual easement would be negotiated between the non-federal party and unauthorized owner.</td>
</tr>
<tr>
<td>Water Right</td>
<td>The State of Idaho has appropriated one water right under the law of the State of Idaho. This right does not grant any right-of-ways or easements across the NFS or the land of another.</td>
<td>N/A</td>
</tr>
<tr>
<td>Parcel F-8: T. 54 N., R. 2 W., sec. 30, lots 3, 4, E½SW¼.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal and Physical Access / Easement</td>
<td>The following road is included in an existing road easement to Bonner County Public Road Easement S113 recorded on 11/28/1988.</td>
<td>N/A</td>
</tr>
<tr>
<td>Land Uses</td>
<td>Specifics</td>
<td>Curative Action</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Special Use Permit</td>
<td>There is an existing special use authorization for telephone utility use across NFS land with Verizon.</td>
<td>Due to the proposed land exchange, a perpetual easement would be negotiated between the non-federal party and permit holder. The Forest Service shall subsequently terminate the portion of the special use permit which affects parcel F-8 special use permit.</td>
</tr>
<tr>
<td>Parcel F-9: T. 55 N., R. 6 W., sec. 12, lots 1 thru 4, inclusive; SW%NE%NE%, NW%NE%, NE%SW%NE%, SE%NE%.)</td>
<td>Legal and Physical Access / Easement</td>
<td>The following road is included in an existing road easement to the State of ID. DOT easement Highway 41 recorded on 9/13/1993.</td>
</tr>
<tr>
<td></td>
<td>Special Use Permits</td>
<td>Due to the proposed land exchange, perpetual easements would be negotiated between the non-federal party and permit holders. The Forest Service shall subsequently terminate the portion of the special use permits which affects parcel-9 special use permits.</td>
</tr>
<tr>
<td></td>
<td>Existing Forest Service developed roads across NFS land are being used for residential access.</td>
<td>Due to the proposed land exchange, these homeowners would negotiate with non-federal party for a perpetual easement.</td>
</tr>
<tr>
<td>Parcel F-10: T. 56 N., R. 4 W., sec. 2, SW%NW%, W%SW%.</td>
<td>No Legal and Physical Access</td>
<td>Stimson Lumber Company has property adjacent to this parcel to obtain access.</td>
</tr>
<tr>
<td>Parcel F-11: T. 55 N., R. 3 W., sec. 1, lots 1, 5.</td>
<td>No Legal and Physical Access</td>
<td>Stimson Lumber Company has property adjacent to this parcel to obtain access.</td>
</tr>
</tbody>
</table>
Table 13. Non-Federal Parcel Land Use Considerations for the Proposed Land Exchange

<table>
<thead>
<tr>
<th>Land Uses</th>
<th>Specifics</th>
<th>Curative Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal and Physical Access</td>
<td>An existing easement for Public Roads was recorded on 10/18/1996.</td>
<td>N/A</td>
</tr>
<tr>
<td>Easement</td>
<td>An easement was granted to J.D. Lumber and recorded on 02/01/2007.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Environmental Consequences

Direct and Indirect Effects of Alternative 1

Forest Service policy is to acquire permanent exclusive easements that permit full multiple-use of NFS lands (FSM 5460). As shown in Table 12 the Forest Service does not have legal access to Parcels F-1, F-3, F-4, F-10 and F-11. By conveying some or all of these parcels, the Forest Service would save the cost of acquiring five permanent easements. The IPNF’s average cost per easement acquisition is $15,000. Estimated savings to the IPNF would be $75,000 under this proposed exchange. Under the No Action Alternative, the Forest Service would need five easements to access the five parcels.

Direct and Indirect Effects of Alternative 2

The IPNF would incur some cost to assign the existing easement to Stimson Lumber Company in parcel F-2. This cost would be offset by savings from not having to administer the easement under the proposed land exchange.

This land exchange has existing special use authorizations in parcels F-2, F-5, F-7, F-8, and F-9. These existing uses on NFS land would receive an easement negotiated between Stimson Lumber Company and the permit holders. No longer would there be a need to administer and reauthorize some of these special use authorizations and in doing so the Forest Service would realize a savings.

Forest Service Roads 2634A and 2634A-1 in parcel F-5 would be reserved to the U.S. Government and would be recorded. These roads would require periodical maintenance. The cost of maintaining and reserving these roads are minimal.

Forest Service Trail 230 in parcel F-4 would be reserved to the U.S. Government and would be recorded. This portion of the trail is part of a larger motorized trail system enjoyed by the public. The public benefit of reserving this portion of the trail would be an offset to the cost of maintain this trail.

Government Taxes and Revenues

State and local governments in Idaho receive revenues from both privately owned and federal lands through several types of payment mechanisms. These are the Federal 25 Percent Fund, Federal Payments In-Lieu of Taxes (PILT), property taxes paid on private lands and the Idaho Forest Product Yield Tax. The following describes each of these payment mechanisms and how the proposed land exchange would affect payments.
Federal 25 Percent Fund

In previous years, a portion of the returns to the U.S. Treasury from revenue producing Forest Service activities, such as timber sales, were returned to each state containing national forestlands for distribution back to counties having acreage within a National Forest. These revenue distributions, referred to as Federal 25 Percent Fund payments, were dedicated to schools and roads. In October of 2000 and under the amended and reauthorization of 2009, the Secure Rural Schools and Community Self-Determination Act of 2000 was enacted to stabilize 25 percent fund payments to states for schools and roads. Under that legislation, counties could elect for fiscal years 2001 through 2011 to take a full payment approach that is not linked to annual Forest Service revenues. Full payment is based on the average of the highest three payments made to the state between 1986 and 1999. Bonner County elected to take full payment.

Direct, Indirect, and Cumulative Effects of Alternative 1 and 2

Under both alternatives, there would be no effect to the amount of Federal 25 Percent Fund payments that Bonner County receives, at least through 2011 there would be no change in the Federal 25 Percent fund payment to Bonner County. Since there would be no change to the Federal 25 Percent fund, there would be no cumulative effects associated with these alternatives. It is too speculative to estimate after 2011 how the proposed action would affect Federal 25 Percent Fund payments to Bonner County.

Federal Payments In-Lieu of Taxes

Payments in-lieu of taxes (PILT) are federal payments to local governments that help counties offset losses in property taxes associated with nontaxable federal land located within a county’s boundary. PILT payments are distributed by the Bureau of Land Management (BLM) and are made for tax-exempt federal land administered by the BLM, the Forest Service, the National Park Service, U.S. Fish and Wildlife Service, and for Federal water projects and some military installations.

These payments are designed to supplement other federal land receipt-sharing payments that local governments may receive, including timber receipts from National Forests, grazing fee receipts, mineral material sales receipts, and some receipts collected on wildlife refuges. PILT payments traditionally helped balance the uneven distribution of Federal 25 Percent Fund payments between counties with NFS land and counties with other types of federal land that do not generate timber revenues. PILT has historically been a more stable and dependable revenue source than Federal 25 Percent Fund payments because it is a flat per-acre payment that is not tied to levels of revenue generated by NFS land.

Direct, Indirect and Cumulative Effects of Alternative 1

Under the No Action alternative, there would be no change in the NFS land base in Bonner County, therefore there would be no change in PILT payments to the county. Since there would be no change there would be no cumulative effects associated with this alternative.

Direct and Indirect Effects of Alternative 2

Under Alternative 2, Bonner County would likely see a net loss of NFS land. This loss would result in a decrease of PILT payments to the county; however, the effect is expected to be minimal when considering the total entitlement acres and annual revenues within the county.
Cumulative Effects of Alternative 2
The decrease in PILT payments to Bonner County are not expected to have a fiscally cumulative effect on the county since the reduced payment is minimal compared to the annual revenues within the county.

Idaho Property Tax

Direct, Indirect and Cumulative Effects of Alternative 1
Under the No Action alternative, there would be no change in revenue to the state from property taxes, because there would be no change in land ownership from public to private. Since there would be no change there would be no cumulative effects associated with this alternative.

Direct and Indirect Effects of Alternative 2
Under Alternative 2, there would likely be a gain of private timber acres in Bonner County which would result in a net gain of property tax revenue for the county. Forest lands held in private ownership and designated by the owner to be subject to the provisions of Title 63, Revenue and Taxation, Chapter 17 shall be valued by the county assessor as real property at rates which reflect only bare forest land. The gain of taxed bare forest land would be somewhat offset by PILT payments. The gain in tax revenue in Bonner County associated with this alternative would be negligible when considering the total private land within the county and the annual total property tax revenues.

Cumulative Effects of Alternative 2
The slight gain in property tax revenue associated with this alternative is not expected to have fiscal cumulative effect on the county since this increase in taxes is minimal compared to the private land within the county.

Idaho Forest Products Yield Tax

All harvested timber subject to the provisions of Title 63, Revenue and Taxation, Chapter 17 and delivered to a point of utilization, as logs shall be subject to a forest products yield tax. The yield tax is three percent of stumpage value as determined by the state commission.

Direct, Indirect and Cumulative Effects of Alternative 1
Under the No Action alternative, there would be no change in revenue to the state from the Idaho Forest Products Yield Tax from current conditions.

Direct and Indirect Effects of Alternative 2
Under Alternative 2, Stimson Lumber Company would acquire approximately 268 MBF of sawlog timber which would amount to more than it would convey. Stimson Lumber Company would gain approximately 160 MBF of sawlog timber in Bonner County. This small ownership change in sawlog volume within the affected county would have minimal effect on county receipts from the Idaho Forest Products Yield Tax.

Other Considerations

Prime Farmland/Caves/Grazing /Civil Rights/Slopes
There would be no effect to prime farmland, rangeland or forest land (Dept. Regulation 9500-3), to cave resources (Federal Cave Resources Protection Act of 1988), or to grazing rights (Federal
Land Policy and Management Act of 1976, Section 402 (g)). There would be no disproportionate impact to consumers, civil rights, minority groups or women (E.O. 12898), and steep slopes or highly erosive soils.

**Property Boundaries**

The Forest Service is required by law to post, survey, and maintain all exterior boundaries of NFS land. The Resources Planning Act targeted all property boundaries to be posted by the year 2020. Estimated landline, corner location, and maintenance cost for the cadastral needs on lands considered in this exchange were determined from the IPNF Cadastral Landline Status Inventory and Land Line MAR Report (project file).

The total IPNF boundary length is greater in areas with fragmented ownership patterns than in comparable sized areas with consolidated ownership. Under the No Action Alternative some of the federal parcels proposed to be conveyed would need to be surveyed, marked and maintained. Alternative 2 would result in a net reduction of 17.78 miles of boundary to maintain on the IPNF and a onetime cost to unmark these boundary lines (project file). The new boundary lines would need to be surveyed and marked. Overall, the result would be a net cost in boundary management of $13,500 (project file).

**Social and Economic Conditions**

This project would not have a significant effect on Total Assessed Valuation for Bonner County, nor would it make any noticeable difference in Payments-in-Lieu of Taxes (see the above discussion under Government Taxes and Revenues).

**Direct and Indirect Effects of Alternative 1**

Under the no action alternative, no change in Payments-in-Lieu of Taxes would occur. There would be no positive addition, to Total Assessed Valuation for Bonner County. The County would lose an opportunity to add to its economic base and a potential employment opportunity would be foregone without the exchange of federal lands.

**Direct and Indirect Effects of Alternative 2**

Private ownership of the federal parcels would create opportunity for timber harvest and the potential for additional employment. Though small, it represents a positive addition to the County’s economic base. It is unlikely that this activity would generate many permanent jobs in the community. There would be very little impact on the population, housing, schools, or emergency services. The federal parcels are located in small communities that consist of many rural homes. Therefore, the proposed action would not have any adverse effect on the environment of minority and low income populations.

**Appraisal**

The fee simple estates of the federal and non-federal parcels are being appraised, subject to existing easements and reservations of record. An appraisal would be completed and approved by a certified appraiser and review appraiser, respectively, in accordance with Federal standards. The appraisal would be completed and approved prior to issuing a Decision Notice. Land values would be disclosed by exchange authority in the Decision Notice.
Outstanding Rights and Reservations

There are recorded outstanding rights and unauthorized uses on federal parcels to convey. There are special use permits (SUP), easements, water rights, and unauthorized uses on federal parcels to convey. There are no grazing permits, unpatented claims, or withdrawals on federal parcels to convey. The following section describes outstanding rights and reservation by parcel number (parcel descriptions can be found in Appendix A).

Parcel F-1:
1. The United States would reserve a right of way for ditches and canals by the authority of the United States Act of August 30, 1890 (26 Stat.391; 43 U.S.C. 945).

Parcel F-2:
1. There is a road constructed within this parcel which neither the Forest Service nor Bonner County have recorded as one of their roads. Homeowners use this road as an access road to their residences. A perpetual easement would need to be negotiated between the non-federal party and the homeowners, and recorded at closing.
2. There are three water right claims on this parcel. These claims consist of a spring, ground water for domestic use, and stockwater use. One water right holder has authorization under a special use permit for a water collection barrel at the source of a spring and 600 feet of buried water transmission line (less than 12 inches in diameter). A perpetual easement would be negotiated between permit holder and non-federal party, and recorded at closing. The Forest Service shall subsequently terminate the SUP.
3. There is an acquired right-of-way leading into this parcel (Forest Service Road 1036, recorded on September 21, 1982, as, Instrument No. 260222, in Book 98 and Page 617). This right-of-way would be assigned to Stimson Lumber Company.

Parcel F-3:
1. The United States will be reserving a right-of-way thereon for ditches and canals by the authority of the United States Act of August 30, 1890 (26 Stat.391; 43 U.S.C. 945).
2. There is one water right claim for domestic and irrigation use on an unnamed stream in this parcel. Currently, there is no authorization for a right-of-way across NFS lands.

Parcel F-4:
1. The United States would reserve a right of way for ditches and canals by the authority of the United States Act of August 30, 1890 (26 Stat.391; 43 U.S.C. 945).
2. The United States and its assigns would reserve an exclusive perpetual easement for an existing Forest Service trail, Bayview Blaketail Trail No. 230 across E¹/₄SE¹/₄SE¹/₄ of sec. 10, T. 54 N., R. 2 W., B.M.

Parcel F-5:
1. The United States would reserve a right of way for ditches and canals by the authority of the United States Act of August 30, 1890 (26 Stat.391; 43 U.S.C. 945).
2. There is a SUP authorizing a buried electrical line. This permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at closing. The Forest Service shall subsequently terminate the portion of the SUP which affects F-5.
3. The United States and its assigns would reserve an exclusive perpetual easement for two existing roads, Bayview Creek Spur A Road # 2634A across E½NE¼ of sec. 22, T. 54 N., R. 2 W., B.M., and Bayview Creek Spur A-1 Road #2634A-1 across NE¼NE¼ of sec. 22, T. 54 N., R. 2 W., B.M.

4. A FRTA road easement was granted to Plum Creek Timber Co., L.P. from the United States of America, recorded on January 11, 1989, as Instrument No. 357520, records of Bonner County, Idaho.

Parcel F-7:
1. There is an unauthorized buried telephone line in this parcel. A perpetual easement would be negotiated between the non-federal party and the user, and recorded at closing.
2. There is a SUP authorizing a 115 KV line. This permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at closing. The Forest Service shall subsequently terminate the portion of the SUP which affects F-7.
3. There is a SUP authorizing an overhead power line and pole. This permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at closing. The Forest Service shall subsequently terminate the portion of the SUP which affects F-7.
4. A Department of Transportation easement granted to the State of Idaho from the United States of America, recorded on September 13, 1993, as Instrument No. 431702, records of Bonner County, Idaho.
5. A road easement was granted to Bonner County from the United States of America, recorded on November 28, 1988, as Instrument No. 355847, records of Bonner County, Idaho.
6. There is one water right claim for point of use. Currently, there is no authorization or existing improvement across NFS lands.

Parcel F-8:
1. There is a SUP authorization for a phone line. This permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at closing. The Forest Service shall subsequently terminate the portion of the SUP which affects F-8.
2. A road easement was granted to Bonner County from the United States of America, recorded on November 28, 1988, as Instrument No. 355847, records of Bonner County, Idaho.

Parcel F-9:
1. There are existing Forest Service developed roads used for residential access; the homeowners using these roads would negotiate with the non-federal party for a perpetual easement across Forest Service Road 2436A, Forest Service Road 2783, and a portion of Forest Service Road 2436, and recorded at closing.
2. There is a SUP authorizing an overhead power line and pole. This portion of the permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at closing. The Forest Service shall subsequently terminate the portion of the SUP which affects F-9.
3. There is a SUP authorization for a phone line. This portion of the permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at
closing. The Forest Service shall subsequently terminate the portion of the SUP which affects F-9.

4. There is a SUP authorizing road access to a private residence, holder is Robert Monahan. This permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at closing. The Forest Service shall subsequently terminate the SUP.

5. There is a SUP authorizing road access to a private residence, holder is Gilman Family Trust. This permit would be negotiated between the non-federal party and the permit holder for a perpetual easement, and recorded at closing. The Forest Service shall subsequently terminate the SUP.

6. A Department of Transportation easement was granted to the State of Idaho from the United States of America, recorded on September 13, 1993, as Instrument No. 431702, records of Bonner County, Idaho.

Parcels 10 and 11 have no known rights to be reserved by the United States and its assigns. The Federal Land Status Report identifies all outstanding rights and reservations on the federal parcels to convey (project file).

**Cost and Savings Proposed Land Exchange Summary**

As stated previously, the Proposed Land Exchange would affect IPNF projected land management administrative costs. The $46,500 Proposed Land Exchange one-time savings is shown in Table 14. Refer to the previous narrative for a discussion on the anticipated annual savings and costs associated with road management. This narrative concluded there would be minor annual management savings under the action alternative.

<table>
<thead>
<tr>
<th>Administrative Requirement</th>
<th>Cost/Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easement Acquisition/Grants</td>
<td>-$75,000</td>
</tr>
<tr>
<td>Property Boundary Administration</td>
<td>+$13,500</td>
</tr>
<tr>
<td>Land Title Transfer and Closing Phase</td>
<td>+$15,000</td>
</tr>
<tr>
<td>Total Savings less Cost</td>
<td>-$46,500</td>
</tr>
</tbody>
</table>

*A plus represents an increase in FS costs and a negative change represents a reduction in FS costs*

**Landownership Adjustment Cumulative Effects**

Land exchanges over time can indicate trends in landownership adjustments and therefore provide information on cumulative impacts related to IPNF ownership adjustment decisions. Table 15 displays the IPNF conveyed and acquired acreage for the period 1981 – 2009. There has been a net gain during that period of 24,260 acres. Forest Plan Monitoring and Evaluation Reports show an overall net gain in timber growth potential, timber volume, recreation visitor days, roadless area acres, floodplain acres and wetland acres from these past exchanges.
Table 15. IPNF Conveyed and Acquired Acreage from 1981 through 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Federal Acres Conveyed</th>
<th>Non-Federal Acres Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>8,582</td>
<td>12,187</td>
</tr>
<tr>
<td>1982</td>
<td>2,960</td>
<td>5,728</td>
</tr>
<tr>
<td>1983</td>
<td>2,277</td>
<td>520</td>
</tr>
<tr>
<td>1984</td>
<td>3,718</td>
<td>3,126</td>
</tr>
<tr>
<td>1985</td>
<td>7,556</td>
<td>15,775</td>
</tr>
<tr>
<td>1986</td>
<td>8,044</td>
<td>9,815</td>
</tr>
<tr>
<td>1987</td>
<td>2,779</td>
<td>4,632</td>
</tr>
<tr>
<td>1988</td>
<td>3,097</td>
<td>3,164</td>
</tr>
<tr>
<td>1989</td>
<td>3,692</td>
<td>4,062</td>
</tr>
<tr>
<td>1990</td>
<td>2,376</td>
<td>3,281</td>
</tr>
<tr>
<td>1991</td>
<td>630</td>
<td>1,080</td>
</tr>
<tr>
<td>1992</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>1993</td>
<td>11,282</td>
<td>14,009</td>
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<tr>
<td>1994</td>
<td>294</td>
<td>370</td>
</tr>
<tr>
<td>1995</td>
<td>1,965</td>
<td>3,229</td>
</tr>
<tr>
<td>1996</td>
<td>35</td>
<td>40</td>
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<td>1997</td>
<td>4,755</td>
<td>7,553</td>
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<td>1998</td>
<td>3,728</td>
<td>2,077</td>
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<tr>
<td>1999</td>
<td>2,680</td>
<td>1,880</td>
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<tr>
<td>2000</td>
<td>1,350</td>
<td>1,920</td>
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<td>2001</td>
<td>0</td>
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<td>2002</td>
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<td>2004</td>
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<td>2006</td>
<td>0</td>
<td>0</td>
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<tr>
<td>2007</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>2008</td>
<td>100</td>
<td>178</td>
</tr>
<tr>
<td>2009</td>
<td>1,339</td>
<td>2,566</td>
</tr>
<tr>
<td>Total</td>
<td>73,064</td>
<td>97,324</td>
</tr>
</tbody>
</table>

Given the above information, Alternative 2 would not result in an overall downward trend in federal ownership.
Consultation and Coordination
The Forest Service consulted the following individuals, Federal, State, tribes, and local agencies during the development of this environmental assessment:

Line Officer Direction
Richard P. Kramer, District Ranger, Sandpoint Ranger District

ID Team Members:
Kevin Davis (Hydrology Technician)
Sandy Gore (GIS specialist)
Jason Gritzner (Hydrologist)
MaryAnn Hamilton (Recreation)
Anna Hammet (Botanist)
Nancy Kertis (Forester; Project Team Leader; Writer-Editor)
Joe Madison (Wildlife and Fisheries Biologist)
Jim Nieman (Geotechnical Engineer)
Tom Sandburg (Heritage)
Gianna Vaccaro (Realty Specialist)
Shanna Kleinsmith (Writer-Editor)

Federal, State, and Local Agencies:
Bonner County Commissioners

Tribes:
Coeur d’Alene Tribe
Kalispel Tribe
References


Pratt, K.L. 1985. Pend Oreille trout and char life history study. Idaho Department of Fish and Game in cooperation with Lake Pend Oreille Club. Boise, ID.


Samson, F.B. 2006. A conservation assessment of the northern goshawk, black-backed woodpecker, flammulated owl and pileated woodpecker in the Northern Region, USDA Forest Service. Forest Service Northern Region, Missoula, MT.


USDA Forest Service. 2005. Region One sensitive species list update. Missoula, MT.


Appendix A – Legal Descriptions

Table A-1. Federal lands included in Alternative 2 (*)

<table>
<thead>
<tr>
<th>Parcel Number</th>
<th>Location</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-1</td>
<td>T. 55 N., R. 2 W., Section 28; W½SE¼, SE¼SE¼</td>
<td>121.40</td>
</tr>
<tr>
<td>F-3</td>
<td>T. 54 N., R. 2 W., sec. 10, E½NW¼</td>
<td>82.66</td>
</tr>
<tr>
<td>F-4</td>
<td>T. 54 N., R. 2 W., sec. 10, NE¼SE¼</td>
<td>40.00</td>
</tr>
<tr>
<td>F-5</td>
<td>T. 54 N., R. 2 W., sec. 15, lots 5, 7, 8,10; sec. 22, lots 1, 2 (less SW¼ of lot 2) NE¼, E½NW¼</td>
<td>352.30</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal Acres</strong></td>
<td>596.36</td>
</tr>
<tr>
<td></td>
<td>**Weeks Act of March 1, 1911 (16 U.S.C. 516) (+)</td>
<td></td>
</tr>
<tr>
<td>F-2</td>
<td>T. 54 N., R. 4 W., sec. 5, SW¼; sec. 6, lots 2 thru 4, inclusive, SE¼NE¼, E¼SE¼</td>
<td>399.11</td>
</tr>
<tr>
<td>F-7</td>
<td>T. 54 N., R. 4 W., sec. 30, SE¼.</td>
<td>160.00</td>
</tr>
<tr>
<td>F-8</td>
<td>T. 54 N., R. 2 W., sec. 30, lots 3, 4, E½SW¼</td>
<td>156.50</td>
</tr>
<tr>
<td>F-9</td>
<td>T. 55 N., R. 6 W., sec. 12, lots 1 thru 4, inclusive; SW¼NE¼NE¼; NW¼NE¼, NE¼SW¼NE¼, SE¼NE¼.</td>
<td>307.30</td>
</tr>
<tr>
<td>F-10</td>
<td>T. 56 N., R. 4 W., sec. 2, SW¼NW¼, W½SW¼</td>
<td>120.00</td>
</tr>
<tr>
<td>F-11</td>
<td>T. 55 N., R. 3 W., sec. 1, lots 1, 5</td>
<td>81.95</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal Acres</strong></td>
<td>1,224.86</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL FEDERAL ACRE</strong></td>
<td>1,821.22</td>
</tr>
</tbody>
</table>

(*) Parcel 6 was dropped early in the ATI process from the federal parcels
(**) All parcels are reserved public domain, under the Presidential Proclamation dated 11/6/1906
(+ ) All parcels are acquired lands

Table A-2. Non-federal lands to be acquired

<table>
<thead>
<tr>
<th>Parcel Number</th>
<th>Location</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-1</td>
<td>T. 56 N., R.2 E. Section 15, lots 1 thru 4, inclusive, NE¼, NE¼NW¼, NW¼SW¼, N¼SE¼</td>
<td>447.74</td>
</tr>
<tr>
<td>P-2</td>
<td>T. 56 N., R. 2 E. Section 16, SE¼</td>
<td>159.67</td>
</tr>
<tr>
<td>P-3</td>
<td>T. 56 N., R. 2 E. Section 16, E¾NE¼ (S of Spring Creek Road)</td>
<td>14.50</td>
</tr>
<tr>
<td>P-4</td>
<td>T. 56 N., R.2 E. Section 22, S¾NW¾NE¼, SW¾NE¼, NW¼, N¾SW¼.</td>
<td>300.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total Acres</strong></td>
<td>921.91</td>
</tr>
</tbody>
</table>
## Appendix B – Past Present and Reasonably Foreseeable Actions

### Table B-1 - Past timber harvest on National Forest lands included in the land exchange

<table>
<thead>
<tr>
<th>Federal Parcel</th>
<th>Estimated Acres</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 2</td>
<td>29</td>
<td>1996</td>
<td><strong>Forest Service Timber Harvest</strong> – Hoodoo West timber sale – sanitation salvage harvest.</td>
</tr>
<tr>
<td>F 5</td>
<td>112</td>
<td>1977-1979</td>
<td><strong>Forest Service Timber Harvest</strong> – Salee Ridge timber sale – shelterwood harvest</td>
</tr>
<tr>
<td>F 8</td>
<td>148</td>
<td>1979s</td>
<td><strong>Forest Service Timber Harvest</strong> – Careywood South – shelterwood harvest</td>
</tr>
<tr>
<td>F 8</td>
<td>76</td>
<td>1990</td>
<td><strong>Forest Service Timber Harvest</strong> – Careywood OSR – shelterwood ; final removal</td>
</tr>
<tr>
<td>F 9</td>
<td>98</td>
<td>1990</td>
<td><strong>Forest Service Timber Harvest</strong> – Highway 41 North – shelterwood; final removal</td>
</tr>
</tbody>
</table>

### Table B-2 - Ongoing and Foreseeable activities on National Forest parcel and Stimson Lumber Company parcel included in the land exchange

<table>
<thead>
<tr>
<th>Federal Parcel</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 5 through F9</td>
<td>Ongoing</td>
<td><strong>Firewood Gathering</strong> Consists of the salvage of individual dead trees from roads for person firewood use by members of the public</td>
</tr>
<tr>
<td>All Parcels</td>
<td>Ongoing</td>
<td><strong>Hunting</strong> Consists of individuals on foot or horseback in the roadless areas or using a variety of motorized and non-motorized access methods.</td>
</tr>
<tr>
<td>All Parcels</td>
<td>Ongoing</td>
<td><strong>Fire Suppression</strong> Consists of extinguishing either human or natural fire ignitions</td>
</tr>
<tr>
<td>Federal Parcel</td>
<td>Year</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| F 4           | Ongoing  | Trail use and Maintenance  
Consists of motorized and non motorized use. Trail maintenance activities include clearing trail |
| All Parcels   | Ongoing  | Recreational Use  
Semi primitive non-motorize use includes hiking and gathering forest products |
| F 2, F-7 through F-9 | Ongoing  | Residential Development  
Consists of new home construction potential new access either with driveway or road construction |
| F 5           | Ongoing  | Road Maintenance  
Road maintenance consists of blading, brushing, and maintaining culverts. |
| F 2           | Ongoing  | Special Use Permit  
One special use permit for one waterline |
| F 5           | Ongoing  | Special Use Permit  
One special use permit for an electrical transmission line |
| F 7           | Ongoing  | Special Use Permits  
Two special use permits for electrical utilities |
| F 8           | Ongoing  | Special Use Permit  
One special use permit for a telephone utility |
| F 9           | Ongoing  | Special Use Permits  
Two special use permits for road access |
| Non-federal parcels | 2010/2012 | Industrial Private Lands  
Timber harvest, overstory removal (see table 3) |
<table>
<thead>
<tr>
<th>Federal Parcel Number</th>
<th>Acres</th>
<th>Harvest Prescription</th>
<th>Year</th>
<th>Approximate Miles of Road Construction</th>
<th>Approximate Year of Road Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-1</td>
<td>121</td>
<td>Shelterwood</td>
<td>2011</td>
<td>2.0</td>
<td>2010</td>
</tr>
<tr>
<td>F-2</td>
<td>399</td>
<td>Shelterwood</td>
<td>2012</td>
<td>4.5 construct .2 reconstruct</td>
<td>2010</td>
</tr>
<tr>
<td>F-3</td>
<td>79</td>
<td>Shelterwood No Activity</td>
<td>2011</td>
<td>1.0</td>
<td>2010</td>
</tr>
<tr>
<td>F-4</td>
<td>40</td>
<td>Shelterwood</td>
<td>2011</td>
<td>.25 construct .2 reconstruct</td>
<td></td>
</tr>
<tr>
<td>F-5</td>
<td>285</td>
<td>Shelterwood No Activity</td>
<td>2011</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>F-7</td>
<td>74</td>
<td>Precommercial Thin Overstory Removal</td>
<td>2011</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>F-8</td>
<td>156</td>
<td>Precommercial Thin</td>
<td>2011</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>F-9</td>
<td>126</td>
<td>Shelterwood No Activity</td>
<td>2011</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>F-10</td>
<td>76</td>
<td>Shelterwood</td>
<td>2012</td>
<td>1.5</td>
<td>2010</td>
</tr>
<tr>
<td>F-11</td>
<td>67</td>
<td>Shelterwood No Activity</td>
<td>2012</td>
<td>1.1</td>
<td>2010</td>
</tr>
</tbody>
</table>
Appendix C - Land Exchange Process

Introduction

Land exchanges involve three phases that may overlap slightly in time as described below.

1. Land Exchange Proposal Phase - Involves initial discussions and a non-binding agreement to exchange lands, along with the completion of various technical studies

2. NEPA/Appraisal Phase - Involves the completion of the environmental analysis, documented in either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS), if the proposed action is not categorically excluded from such documentation, as per FS Manual 1909.15, Chapter 30. This phase also involves the final appraisal and decision to complete the exchange.

3. Land Title Transfer and Closing Phase - Involves executing the binding exchange agreement and the actual exchange of title to the lands and closing the transaction. These three phases are discussed in more detail below.

These three phases are discussed in more detail below.

The land exchange process includes some procedures that are open for public review and others that are confidential. The NEPA process and the associated Forest Service implementing regulations provide for an open public review process. The process of developing a land exchange proposal, however, is essentially a business negotiation between the non-federal and federal landowners. In this process, non-federal landowners share confidential or proprietary information with the federal landowner. Additionally, prior to signing the exchange agreement, either party to a land exchange may withdraw from the proposal. Because of the confidential business information shared between the two parties as well as the possibility of withdrawal from the Proposed Exchange, the appraisal and associated records are exempt from public disclosure until the exchange agreement is executed. Requests for appraisal information must be made under the Freedom of Information Act (FOIA). Certain appraisal information is exempt from disclosure under the FOIA procedures and may not be released.

Land Exchange Proposal Phase

The first phase of the land exchange process leads to an Agreement to Initiate (ATI) an exchange. The first step involves the negotiations that take place between the Forest Service and the non-federal landowner. Land exchanges are voluntary agreements and must be advantageous to both parties in order to take place. Based on these negotiations, the parties develop a mutually agreeable exchange proposal.

A Feasibility Analysis is done to insure that the proposal is consistent with the Forest Resource Management Plans and with the requirements of applicable laws and regulations. A review is also made of the public interest benefits of the exchange pursuant to 36 CFR 254.3(b). If it is determined that the proposal is feasible, the ATI for the exchange can be executed. The ATI is a non-binding agreement between the FS and the non-federal party setting out the terms and conditions for completing the exchange. The ATI also includes a tentative time schedule and assignment of responsibilities for completion of the exchange. Upon signing the ATI, a Notice of Exchange Proposal (NOEP) is prepared to give public notice that the proposal is being considered and comments are requested. The NOEP is sent to interested parties and is published in local newspapers once a week for four consecutive weeks.
After an ATI has been signed, environmental reports are prepared concerning pertinent issues such as minerals, cultural resources, threatened and endangered species, and timber resources. During this time, discussions may also occur with interested parties, such as local communities, environmental groups, American Indian tribes and governmental agencies. Toward the end of the first phase, the NEPA and appraisal processes are initiated.

**NEPA/Appraisal Phase**

The second phase begins when the draft exchange proposal and the environmental responses are completed or nearing completion and the potential for the land exchange to actually occur becomes apparent. With the initiation of the NEPA process, public and agency scoping and public involvement continues. Issues are identified, alternatives are developed, and the environmental analysis is conducted and documented. In this instance, the analysis is documented in an Environmental Assessment. The final decision will be documented in a Decision Notice.

In this phase, the appraisal of both the federal and non-federal lands is prepared. The appraisal is prepared in accordance with the Uniform Standards of Professional Appraisal Practice and the Uniform Appraisal Standards for Federal Land Acquisition. These documents require that the land and interests associated with the land be appraised to the highest and best use. Values of both the federal and non-federal lands are based upon the private, open market, not value to the government or non-federal party. The appraisal prepared for the land exchange is reviewed by a qualified review appraiser to ensure that it is acceptable and complies with the appropriate standards. The appraised value of the lands will be shown in the Decision Notice. Under the Federal Land Policy and Management Act of 1976, all exchanges must be equal in value. FS regulations at 36 CFR 254.3(c) require that exchanges must be of equal value or equalized pursuant to 36 CFR 254.12 by cash payment, after making all reasonable efforts to equalize values by adding or deleting lands. If lands proposed for exchange are not equal in value, either party may make them equal by cash payment not to exceed 25 percent of the federal land value. The amount of any cash equalization payment must be kept to a minimum.

Once the Decision Notice is issued, a Notice of Decision (NOD) is prepared and sent to interested parties and published one time in local newspapers. The NOD briefly describes the decision made and provides directions for obtaining a copy of the decision.

**Land Title Transfer and Closing Phase**

After the NEPA/Appraisal phase, the third phase of the land exchange process begins. During this final phase, both parties agree to the appraised land values and mix of lands and/or cash equalization, and a binding exchange agreement is prepared and signed. Additionally, at this stage there is a review of the exchange agreement by the Regional Office in Missoula, Montana. These approvals are necessary for the exchange agreement to be implemented. Final processing steps involve the transfer of land title by exchanging of deeds and patent, usually through a simultaneous escrow closing procedure and obtaining final title insurance to assure clear title. A final title opinion by the FS and its Office of General Counsel is obtained and posting of land records is accomplished completing the exchange process.