



United States
Department of
Agriculture

Forest
Service

May 2006



Record of Decision

West Gold Project

Supplemental Environmental Impact Statement

Sandpoint Ranger District, Idaho Panhandle National Forest

Bonner County, Idaho

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RECORD OF DECISION

for the

WEST GOLD PROJECT

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

**Sandpoint Ranger District
Idaho Panhandle National Forests
Bonner County, Idaho**

May 2006

Responsible Agency:

USDA Forest Service

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Attachments

- Attachment A – Stand Information
- Attachment B – Openings Greater Than 40 Acres
- Attachment C – Design Features of the Selected Alternative
- Attachment D – Maps Related to The Selected Alternative

West Gold Project Supplemental Environmental Impact Statement Record of Decision

Introduction

This Record of Decision documents my decision and rationale to select an alternative for the West Gold Project. My decision is based on review of the West Gold Project Final Supplemental Environmental Impact Statement (FSEIS), review of public comments received to date, and how well the selected alternative meets the stated purpose and need for the project, protects resources, addresses public concerns, and is consistent with applicable laws, plans and policies.

Project Location

The West Gold Project is located about two miles southwest of Lakeview, Idaho (see figure A). The area can be reached by Forest Roads 2707, 278 and 332. The project area consists of National Forest land in the following legal location: all or portions of sections 13, 14, 23, 24, 25, 26, 35 and 36 in Township 53 North, Range 2 West and sections 8, 9, 10, 16, 17, 20, 21, and 29 in Township 53 North, Range 1 West.

My Decision

I have decided to select **Alternative C** as described within the West Gold Project FSEIS (p. II-12) **but modified** to construct 850 feet of permanent road and a helicopter landing. I believe Alternative C Modified provides comprehensive treatment of the resource problems identified in the FSEIS, meets the purpose and need for this project, responds to public concerns, and is consistent with applicable laws, plans, and policies. The modification has been reviewed by the interdisciplinary team and has been found to be within the scope of effects analyzed in the FSEIS.

Out of eleven alternatives considered, four were analyzed in detail: Alternative A – no action, Alternative B – the proposed action, Alternative C – an alternative that did not propose any new road construction, and Alternative D – an alternative that proposed mostly selective cutting as a vegetation treatment tool.

The detailed rationale for my decision, stated further in this document, explains how, ultimately, my decision came down to choosing between Alternatives B and C. After evaluating public comments and the FSEIS, I found that both alternatives are very similar-- both do a very good job of meeting the purpose and need and responding to public issues and both are consistent with relevant laws, plans and policies. Given that all these factors are equal, my decision came down to the difference between B and C from an aquatic standpoint. Since both alternatives propose restorative actions that would result in positive benefits to the watershed in the long-term, my decision was based primarily on the level of short-term risk each alternative posed to the aquatic resources as a result of ground-disturbing activities. I believe that the risk of harmful effects from either alternative to the watershed would be low, especially now that substantial aquatic restoration has occurred in the Gold Creek watershed as recommended by the Gold Creek watershed assessment. However, Alternative C would have the lowest risk (FSEIS, Table 4, Chapter II). With the project occurring in a watershed that provides important spawning habitat for bull trout, a threatened species, I decided that choosing the alternative that did a good job of meeting our purpose and need, while having the lowest risk was the best decision.

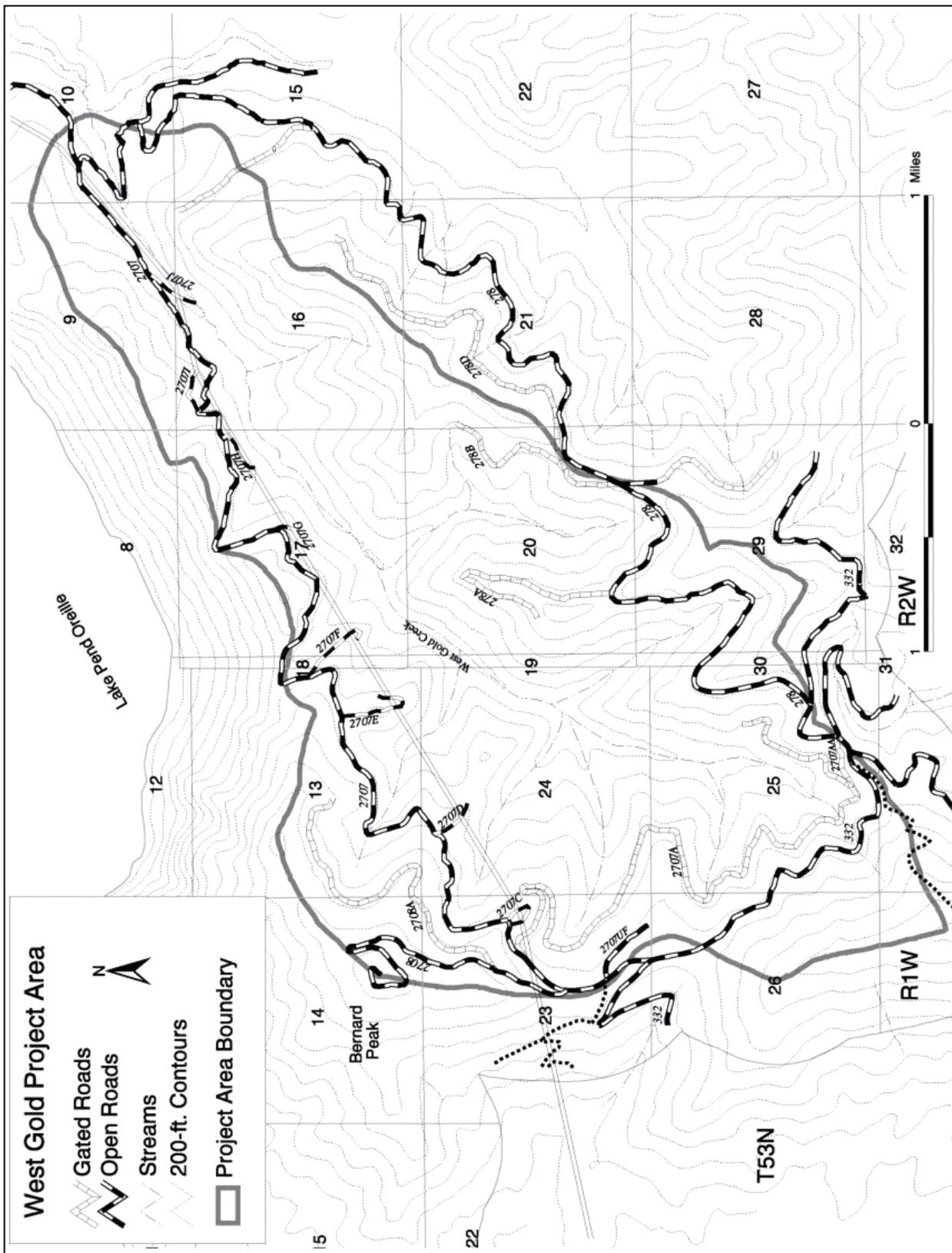


Figure A. Vicinity map for the West Gold Project

Document Organization

The following sections provide more specific information on the purpose and need for the project, the activities that will be accomplished with the selected alternative, the public involvement that has taken place, other alternatives that were considered, and the rationale for my decision. Also documented are findings required by laws and policies, identification of the environmentally preferable alternative, when the decision will be implemented, and appeal information.

Purpose and Need

The purpose and need for the West Gold Project was derived from scientific information and assessments, and from field reviews and surveys of the resources in the West Gold drainage (FSEIS pp. I-4 to I-7). Based on this information we developed a goal with four main objectives:

To improve the health and productivity of terrestrial and aquatic habitats by:

- ◆ *Restoring desired forest cover, structure, pattern, and species composition across the landscape where they are outside natural or accepted ranges.*
- ◆ *Providing for wildlife habitat diversity.*
- ◆ *Restoring fire as an ecological process.*
- ◆ *Maintaining and improving West Gold Creek's aquatic habitat by reducing existing and potential sediment risks from roads.*

The Gold Creek Ecosystem Assessment at the Watershed Scale (EAWS) evaluated the resource conditions of the Gold Creek Watershed (USDA 2002). Combined with the findings of broader scale assessments (Interior Columbia Basin Ecosystem Management Assessment, Northern Region Overview, and Pend Oreille Geographic Assessment) described in Chapter I (pp. I-4 to I-7), the findings of the Gold Creek EAWS provided the basis for our purpose and need (p. I-4). Specific findings and recommendations from this assessment that relate to the West Gold project area are:

Aquatic Ecosystems – Historically, large fires burned across the entire Gold Creek Watershed. Between 1850 and 1896, two stand-replacing fires consumed most of the forest vegetation within the watershed. As a result of these fires, Gold and West Gold Creeks were shaped by high water yields, increases in sediment and debris flows. Hydrologically, West Gold Creek is currently within its natural range of variability (sediment and water yield levels are within historic ranges and the creek is in good condition). However, the West Gold Creek subwatershed is in a rain-on-snow zone, which, combined with sediment risks from roads, can put fish spawning habitat at risk. Gold Creek provides important spawning habitat for Bull Trout, a threatened species. ***Reducing road densities and potential sediment risks from existing roads are recommended to maintain and improve the aquatic habitat in West Gold Creek.***

Terrestrial Ecosystems – The introduction of blister rust and almost 70 years of fire suppression have changed the character of the forest vegetation. There has been a substantial reduction in the percentage of landscape composed of long-lived tree species such as western white pine, ponderosa pine, and larch. Conversely there has been an increase in Douglas-fir and grand fir, species that are more vulnerable to disturbances such as insects, diseases and fires. They are less adapted to disturbance such as fire and to natural climatic variability than the species they replaced. As a result, there has been a significant increase in insect and disease activity, which has led to substantial amounts of trees dying throughout the watershed and higher fuel accumulations.

The longer-lived species that do exist in the subwatershed are not regenerating naturally because there is a reduced seed source and lack of areas where these seedlings can germinate and grow. These vegetation conditions have created a homogeneous forest that lacks structural and tree species diversity. Old growth and early succession patch sizes are smaller than are normally found on habitat types of this area. There is a direct correlation between this lack of vegetation diversity and a lack of wildlife habitat and species diversity. ***Treatment of stands to maintain or restore desired species, structures and patterns is recommended to increase terrestrial biodiversity and wildlife habitats.***

A lack of natural fires (from fire suppression) and an increase in dying trees has allowed forest fuels to increase beyond acceptable levels. Although large fires have been a natural part of ecosystem processes in this watershed, human developments within and just outside the subwatershed make the prospect of letting such a large fire burn today socially unacceptable. Suppressing such a fire is directed in the Forest Plan, and given the current fuel conditions would be very difficult. ***Treatment of fuels is recommended to improve our ability to suppress unwanted fire starts in the subwatershed, and use of prescribed fire is recommended to restore fire as a beneficial ecological process.***

For more details, see the Affected Environment sections of Chapter III in the FSEIS.

The Selected Alternative

Alternative C “modified” is identical to Alternative C in the FSEIS with one exception—it will construct about 850 feet or 0.16 mile of road on the ridgetop above Road 278D to access and build a helicopter landing. See table A for a summary of activities and Attachment D for maps. Constructing this road and landing in this location will allow for a shorter and less costly helicopter flight distance to access several logging units (see ID team Meetings Section of the project file).

Details of Alternative C Modified

Vegetation Treatments (see definitions in FSEIS, p. II-10): Selective cutting will occur on approximately 411 acres to reduce competition and increase tree growth within stands. These are stands where significant numbers of healthy desired species such as white pine, larch and ponderosa pine are present and are in need of thinning to retain this health. The silvicultural prescriptions may include treatments such as thinning, improvement cutting and thinning with group selection.

Regeneration cutting and reforestation will occur on approximately 898 acres to remove undesirable trees, trees susceptible to or infested with root disease, or trees at risk of being killed by insects. Many of these are stands where there is significant tree mortality occurring or where there is *risk* of significant tree mortality within the next 10 to 20 years. Following cutting, these stands will be burned to reduce fuels and prepare the site for planting with desired longer-lived species less susceptible to root disease. This type of cutting will result in 16 stands with openings

greater than 40 acres in size^{*}. The list of stands with openings over 40 acres can be found in the Forest Vegetation portion of the project file. The Regional Forester granted approval to exceed the 40-acre opening limit that is specified in CFR 219.27(d)(2)(i) and Forest Service Manual 2470.1 (see Attachment B). The silvicultural prescriptions will include irregular shelterwood, seedtree with reserves, and final removal with reserves. Rehabilitation and reforestation will be used in areas where there are already large openings created by root disease and insect attack (see Glossary, Appendix G in the FSEIS for prescription definitions).

See Attachment A for a list of stands to be treated in the project area and their existing conditions.

Fuel Treatments: Prescribed burning (underburning) will be the primary tool used on about 1,077 acres to restore fire as an ecological process and to prepare the site for planting desired longer-lived species of ponderosa pine, larch and white pine. Non-fire fuel treatments, include about 223 acres of “limb and lop” (branches are cut from felled trees to a predetermined height then scattered to reduce fuel concentrations), about 10 acres of whole tree yarding and about 28 acres of grapple piling. About 29 acres of one old growth stand (unit 26) would be underburned (without any cutting) to provide ecological benefits of a low-intensity fire.

Within proposed units 16, 27, 31, 39, and 24, there may be areas where root disease patches and brush fields extend into the Riparian Habitat Conservation Areas (RHCAs). Slashing and burning fuel treatments would occur in these areas to expedite trending the riparian area toward long-lived tree species, improved canopy cover, and woody debris recruitment to West Gold Creek in the long term. No merchantable material would be removed. This is consistent with INFS direction (USDA 1995; Appendix A, TM-1(b)).

Logging Systems and Road Construction: Approximately 68% of the area will be helicopter yarded, 31% will be skyline yarded and 1% will be tractor yarded. Approximately 0.16 mile of road will be constructed in order to construct a necessary helicopter landing site. **This road construction is the one feature in Alternative C that has been modified.** No more than 11 landing sites averaging an acre in size will be constructed; the final number will be determined during final project preparation.

Road Work to Improve Aquatic and Wildlife Habitat: To help reduce potential and existing sediment risks to the watershed, road maintenance activities would improve existing road drainage structures and surfaces on about 27.9 miles of road (see FSEIS, tables 1 and 26). Existing roads would be improved to meet standards suitable for use by large trucks and equipment. Drainage structures in roads that pose sediment risks would be repaired, replaced, removed, or redesigned.

To increase wildlife security and further reduce risks to the watershed, about 1.4 miles of existing gated roads would be decommissioned and about 1.7 miles of a currently gated road would be put into storage after use for the project (see table A below and table 26 in the FSEIS). In addition, 0.7 mile of an existing unclassified road would be decommissioned. If these roads are used by the contractor to accomplish vegetation restoration activities, decommissioning will be included in the contract or accomplished using revenue generated by the sale of timber. If any of the existing roads proposed for decommissioning are not used for the project, they will be decommissioned using appropriated or other funding sources.

^{**}“Openings” in this case are not areas that are completely devoid of large trees. Regeneration cutting units can be considered openings according to policies related to the National Forest Management Act in that they have patches and clumps of trees across the landscape, but on average less than 30 percent of the trees remaining.

Table A. Activities that will occur under Alternative C Modified

Activities	Alternative C Modified
Proposed Vegetative Treatments (Acres)	
Selective cutting	411
Regeneration cutting	898
Underburn Only	29
Total Proposed Treatment Acres	1,338
Proposed Road Treatments (Miles)	
New Road Construction	0.16
New Road Storage	0.16
Existing Road Maintenance	27.9
Existing Classified Road Decommission	1.4
Existing Road Storage	1.7
Unclassified Road to Permanent Road	0.3
Existing Unclassified Road Decommission	0.7
Fuel Treatments (Acres)	
Underburn (includes acres of underburn shown above)	1,077
Limb and Lop	223
Grapple Pile	28
Whole Tree Yard	10
Burn Landing Debris	9
Total Fuels Treatment acres	1,347
Logging Systems (Acres)	
Helicopter	891
Skyline	405
Tractor	13
Total Logged Acres	1,309

Other Restoration Projects

The following projects are beyond the immediate restoration needs of this area but I have decided to approve them in the event that funding would become available to accomplish them. If sufficient revenues are generated from the sale of timber (i.e., from K-V funds), those funds will be used. Other funding sources may be available and each project will be prioritized with other needs across the IPNF and accomplished with appropriated funding. The following projects are listed in order of priority.

Noxious Weed Treatment and Monitoring - In addition to weed prevention measures described in “Features Designed to Prevent the Spread of Noxious Weeds” (FSEIS pp. II-28 to 29) the

project area would be monitored, and weed treatment would be accomplished as necessary. An Integrated Pest Management approach (including biological, mechanical, cultural and chemical control) would be used. This would decrease the chance of existing infestations becoming established in new areas, and would reduce the risk of new invaders becoming established. Weed treatment related to the project would complement weed treatment efforts recently completed along Forest Roads 2707 and 278. All weed management activities would be conducted in accordance with the guidelines in the Sandpoint Noxious Weed Control Project FEIS (USDA 1998c).

Timber Stand Improvement - Thinning young, small diameter trees (formerly known as precommercial thinning) and other work would occur in 382 acres of previously cut areas (see Attachment D). These activities would redistribute growth and trend stand species composition to desired conditions. Thinning would favor healthy trees of desired species adapted to the various habitat types. Seral species such as ponderosa pine, western larch and white pine would be favored when present on the appropriate growing sites. Pruning white pine would improve the opportunity for this species to resist blister rust infection and reach maturity.

Thinning would leave roughly 400 trees per acre, in about 10x10-foot leave spacing. Thinning is necessary for density and species control and to prevent these stands from stagnating. Thinning is most effective if accomplished while the stands are still vigorously growing and while at least 30-40% of the crowns are still maintained in green healthy foliage. All slash from thinning would be removed from road ditch lines.

To control the density levels of the understory within most of the proposed cutting units, either a weed and release or slashing treatment would be accomplished. In general, the regeneration cuts (irregular seed tree and irregular shelterwood cuts) and the group selection cuts would require slashing. The selective cutting units would require some level of weed and release treatment. All slash would be removed from road ditch lines.

Seeding – Following prescribed burning of dry sites, recovery of native vegetation would be monitored. These areas would be seeded with weed-free native and desired non-native species appropriate to the site and fertilized if necessary to establish desired vegetation, enhance forage, and help prevent the spread of noxious weeds.

Specific Features of the Selected Alternative

After reviewing public comments and analyzing the potential effects of proposed activities, specific design features were identified by the interdisciplinary team to reduce and mitigate potential impacts to natural resources of concern (FSEIS pp. II-14 to II-30). These features will be incorporated into the project design, timber sale contract, and other contracts and project plans. See Attachment C for the specific protection measures.

Schedule of Activities

The following table shows the anticipated implementation schedule for activities under the Selected Alternative.

Table B. Approximate schedule of activities

Activity	Alt. C Modified
Road construction/road work	2007-2011
Timber harvest	2007-20011
Prescribed burning	2007-2014
Tree planting	2007-2014
Other Restoration Projects	2007-2014+

Monitoring

Forest Plan Monitoring

For activities in the West Gold project area, the selected alternative will comply with specific monitoring requirements identified by the Forest Plan (USDA Forest Service 1987, Chapter IV). The length of time that monitoring is needed will be determined by the results and evaluation of what is being monitored. When it is certain that regulations and standards are being met, monitoring of a particular element will cease. If monitoring evaluations show that regulations or standards are not being achieved at the desired level, management intervention will occur (FSEIS pp. II-30 to 31).

Monitoring Specific to This Project

Project implementation generally involves the efforts of a variety of individuals with both specialized and general skills and training (FSEIS pp. II-30 to II-31). Employees are accustomed to working together to achieve the desired project objectives. For example, it is common for a sale preparation forester or sale administrator to discuss specific ground or project conditions with the wildlife biologist or hydrologist to apply the best practices on the ground. Joint field reviews are taken as needed. I believe that this steady informal communication will allow for necessary incremental adjustments throughout project layout and implementation to achieve the desired results. In addition to these less formal monitoring procedures, the following monitoring items will be conducted:

Noxious Weeds: Pretreatment of roads and equipment as described in Features Designed to Prevent the Spread of Noxious Weeds (Attachment C) would be documented on sale inspection reports. The effectiveness of seeding disturbed areas will be evaluated upon completion of the activity. Treated areas will be surveyed and monitored according to treatment priorities established in the Sandpoint Noxious Weed Control Project FEIS.

TES Plants: Monitoring of sensitive plant populations where the activities are modified by buffering to avoid adverse effects will be conducted by a botanist to validate the effectiveness of mitigation measures during and following the activity.

Vegetation: All regeneration-cutting units will be monitored for regeneration success the first, third and fifth year following planting if necessary. This is required by the National Forest Management Act.

Best Management Practices: Best Management Practices (BMPs) will be incorporated into many different phases of the project. The zone hydrologist will review the planned design of all roads and all road maintenance to assure compliance with BMPs. The engineering representative and the Zone Hydrologist will monitor all roads to ensure that they were built or maintained to specifications.

A sale administrator will visit each active cutting unit at a frequency necessary to assure compliance with the BMPs and the timber sale contract. Minor contract changes or contract modifications will be agreed upon and enacted, when necessary, to meet objectives and standards on the ground.

Air Quality: During the burning of timber cutting residues (slash), smoke management guidelines would be followed as prescribed in the Idaho Smoke Management Memorandum of Agreement (1990), and the North Idaho Cooperative Smoke Management Plan (1990). Each airshed has a coordinator responsible for reporting all planned activity to a monitoring unit. The monitoring unit regulates the prescribed burning activities of all participants in the program. The Idaho Division of Environmental Quality recognizes this process as Best Available Control Technology for prescribed burning.

Air Quality is monitored by the North Idaho and Montana Airshed Groups during the fall and spring burning seasons and yearlong by the Idaho Department of Environmental Quality.

Visuals: The project will be reviewed before, during and after cutting operations are complete to assess whether visual quality objectives (VQOs) are met.

Decommissioned Roads: Decommissioned roads would be checked periodically during the first year (and periodically thereafter if no problems are noted) to monitor effectiveness of erosion control, noxious weed control, and wildlife security.

Permanent Stream Channel Cross-Sections: Cross-sectional profiles and dominant substrate have been measured in West Gold and Gold Creeks (see the Watershed section of the project file). Measurements will continue to occur following post treatment activities to determine if any changes in stream channel morphology from water yield increases occur.

Public Involvement

Scoping Activities

In June of 1997, a proposal for the West Gold project was mailed out to 96 individuals, organizations, agencies, tribes, and local media on the Sandpoint District mailing list to gather comments to be used in an Environmental Assessment (EA). The project was also listed on the Idaho Panhandle National Forests Quarterly Schedule of Proposed Activities that month and has continued to be on the schedule ever since. We received comments from 11 people, organizations, and agencies. In October of 1997, we held two field trips, one for an individual with questions about the project, and one for the Idaho Fish and Game.

In September of 1998, we sent out an update letter on the project to 29 people who had previously indicated interest in receiving mailings. That same month we held a field trip to the project area with representatives of the U.S. Fish and Wildlife Service. In October of 1998, we held a field trip for another individual interested in the project. The project was then put on hold for a year while district specialists worked on a different Forest-wide project.

In October of 1999, the West Gold interdisciplinary team decided to conduct an ecosystem assessment of the Gold Creek Watershed prior to resuming the West Gold project. In 2000, the team decided to prepare an Environmental Impact Statement (EIS) for the West Gold project instead of an EA because of the complexity of the issues. On July 14, 2000, a new proposal was sent out to 81* individuals, organizations, agencies, tribes, and local media on the Sandpoint District mailing list. A Notice of Intent was published in the Federal Register on July 17, 2000. We received comments from 16 people, organizations, and agencies. On October 18, 2000, we held a field trip with a new representative of the U.S. Fish and Wildlife Service. On November 15, 2000, we met with representatives of Idaho Fish and Game to discuss the proposal. On March 31, 2000, we met with the archaeologist from the Kalispel Tribe and he did not have any concerns about the project. On April 4, 2001, we sent a letter to residents of Lakeview who requested information on the Gold Creek Ecosystem Assessment and informed them of the West Gold EIS. On February 13, 2002, we sent out a letter to our mailing list of interested agencies, organizations and individuals notifying them that the Draft EIS was about to be released and to indicate in what format they would like to receive it (compact disc, paper summary or paper summary and Draft EIS). On March 27, 2002 we sent a letter to all property owners in the Gold Creek Watershed also notifying them of the upcoming release of the Draft EIS and to let us know if they wanted to receive it and in which format.

Issues Raised During Scoping

Numerous issues were raised during our initial public scoping (FSEIS II-4 to II-9). Three key issues led to the development of alternatives to the proposed action. These issues are:

Issue: The effects of regeneration cutting and resulting canopy openings on water yield increases, sediment delivery to streams, and aquatic habitat in West Gold Creek and Gold Creek.

Issue: The effects of road construction, decommissioning, and maintenance activities on sediment delivery to streams and aquatic habitat in West Gold Creek and Gold Creek.

Issue: Risk of project activities on the spread of existing weed infestations and introduction of new weed invaders.

Other issues raised were not key in developing alternatives but were important for their value to design specific protective measures and to measure the effects of the alternatives on different forest resources. These issues included effects of project activities on: forest vegetation, sensitive and rare plants, wildlife habitat and security, restoring fire as an ecological process and our ability to suppress unwanted fires, air quality, soils, visual quality, revenues generated from the sale of timber, and public road access.

*Changed number on mailing list is due to a decrease in the number of people requesting to be informed of Sandpoint District projects and the West Gold project specifically.

Public Review of the Draft EIS

The Draft Environmental Impact Statement (DEIS) presented specific information on the proposal, the alternatives to the proposal, and the results of analysis of the information gathered. The DEIS was mailed on May 2, 2002 to 58 individuals, agencies and groups that requested it for review (DSEIS p. II-2). Three individuals requested and received notification when the DEIS was available to view on the Internet. On May 7 a news release was sent to the Spokesman Review and other local media. A legal ad was published in the Spokesman Review on May 9, 2002. The Federal Register Notice of Availability of the DEIS was published on May 10, 2002. A 45-day comment period occurred until June 24, 2002.

Several meetings and field trips occurred between the Draft and Final EISs. In the spring of 2002, we met with various representatives of OHV groups regarding OHV opportunities in the Sandpoint Ranger District, including the West Gold project. On June 19, road manager Larry Elliot met with members of the Backcountry ATV Association to look at Roads 2707A and AA. On July 25, we met with members of Idaho Fish and Game and Idaho Department of Environmental Quality at the project area. On September 25, we held a field trip in the project area for members of the Idaho Native Plant society.

During the public comment period a total of 120 comment letters were received, 4 from environmental groups, 4 from Federal and State agencies and 112 from OHV users. Of the 112 letters, 108 were identical form letters. Details of all public involvement planning and activities are located in the project file. The responses to public input can be found in Appendix I of the original FEIS. Letters from State and Federal agencies are included in their entirety in Appendix I as required. Responses to comments from these letters are included with the other comments.

Only one new issue was raised after public review of the DEIS: the effect of road construction and existing road management on public road access. As a result, we analyzed this issue in a new section of Chapter III entitled Roads and Access Management. Other comments received were used to adjust and refine the analysis of the proposed action and alternatives, clarify and correct text, and prepare the Final EIS.

Public Review of the Final EIS and ROD

The West Gold FEIS and Record of Decision (ROD) were released in November of 2002. In January of 2003, the decision was appealed by the Lands Council, the Kootenai Environmental Alliance, the Alliance for the Wild Rockies, the Friends of the Pond, and the Ecology Center to the Forest Service's Northern Region Office in Missoula. The Regional Forester reviewed the issues brought up by the appellants, and in February 2003 upheld the Forest Supervisor's decision with one exception. The regional forester found that further analysis of potential environmental effects would be needed before future salvage of trees damaged by weather, fire, or insects could occur within cutting units

Litigation and the Decision to Prepare a Supplemental EIS

In April, three of these environmental groups filed a lawsuit against the Regional Forester for his decisions on the West Gold appeal, as well as another project located in the St. Joe District of the Idaho Panhandle National Forests. In September of 2003, a letter updating the status of the West Gold project was sent to the project's mailing list. In May of 2005, the Forest Supervisor withdrew the decision for the West Gold project (project file). A letter was sent to the project's mailing list explaining that the decision was withdrawn so that the issues raised in *Lands Council v. Powell*, 395 F.3d 1019 (9th Cir. 2005) could be more fully addressed through supplemental analysis.

On December 22, 2005 a letter was sent to the project's mailing list that provided an update on restoration activities in the Gold Creek watershed, and provided notice that a formal Notice of Intent (NOI) to prepare a supplement to the EIS for the West Gold project would be published in the Federal Register the week of December 28, 2005 (project file). The letter also stated that a Draft Supplemental EIS would be distributed for public comment in a few months.

On December 30, 2005, a notice of intent to prepare a Supplemental Environmental Impact Statement was published in the federal register. In response to the notice in the federal register, and appearance in the IPNF's quarterly schedule of proposed actions, several parties expressed interest in the project, and were added to the list to which this Draft Supplemental Environmental Impact Statement (DSEIS) was distributed (DSEIS Appendix H).

Public Review of the Draft SEIS

A DSEIS was mailed on March 15, 2006 to 69 individuals, agencies and groups. The DSEIS distribution list included all parties that had requested copies of the original FEIS, as well as those requesting copies in response to the notification of intent to supplement in the Federal Register and appearance of the project in the IPNF's quarterly schedule of proposed actions. On March 17, 2006, a news release was sent to local media informing them that a DSEIS was available for public review and comment. A legal ad stating that the West Gold DSEIS was completed and available for public review and comment was published in the Spokesman Review on March 27, 2006. A 45-day comment period occurred until May 15, 2006. A story appeared in the Bonner County Daily Bee on April 9, 2006 in response to the news release. No additional copies of the DSEIS were requested as a result of the publication of the legal ad in the Spokesman Review, and in response to the press release.

We received 10 comment letters on the DSEIS. Of these, 4 were from environmental groups, 3 were from property owners in the Lakeview area and 3 were from Federal and State agencies. The responses to public input on the DSEIS are attached to the FSEIS in Appendix J. Letters from State and Federal agencies and the responses to comments from these letters were included with the other comments and responses.

The comments received were used to adjust and refine the analysis of the proposed action and alternatives, clarify and correct text, and prepare the Final SEIS (see Appendix J Response to Comments in the FSEIS and Changes Between the Draft and Final SEIS in the Preface of the FSEIS).

Rationale For My Decision

The purpose and need statements explain why we have proposed this project. When considering alternatives, it is important to me that the selected alternative is one that best fulfills our purpose and need. At the same time, I must weigh other important considerations such as what level of effects the alternative will have on the environment, how well it addresses public concerns, and whether it is consistent with applicable laws and policies.

How Well the Selected Alternative Fulfills the Purpose and Need, Protects Resources, and Responds to Public Comments

Below are our purpose and need statements, followed by my rationale for selecting Alternative C Modified.

- ***Restoring desired forest cover, structure and pattern, and species composition across the landscape where they are outside natural or accepted ranges.***
- ***Providing for wildlife habitat diversity.***

Based on our analysis, I believe the selected alternative will begin to change successional stages and result in improved forest health and wildlife habitat. No old growth will be harvested. Our analysis shows that proposed vegetation treatments will convert homogeneous stands that have a high component of Douglas-fir and grand fir currently showing signs of stress and declining from insect activity and disease, to more diverse stands with desired, longer-lived species (FSEIS pp. III-1 to III-24). This will also trend early successional patch sizes and patterns toward historic ranges. The structure of vegetation within cutting units will be similar to those created by natural fire and successional processes. Individual trees and snags, clumps of trees, and uncut riparian areas will create a mosaic of residual vegetation across the landscape. These trends in the coniferous vegetation will, in turn, improve wildlife habitat by creating long-term habitat stability for species such as flammulated owls and pileated woodpeckers (FSEIS pp. III-102 to III-115).

- ***Restoring fire as an ecological process.***

The analysis shows that prescribed burning will help restore fire to fire-dependent habitat types (FSEIS pp. III-58 to III-69). More than 1,300 acres, or about 30% of the project area will be treated for fuels reduction. As described in Chapter III of the FSEIS, treatments involve a combination of timber cutting and fuels treatments that will greatly reduce the risk of destructive wildfire and improve the ability to suppress unwanted fires in treated areas (FSEIS pp. III-61 to III-66).

Based on our analysis, I feel confident that Alternative C Modified provides the best possible combination of fuel treatments. These reductions in fuels will create a low potential for the development of a destructive crown fire within the project area while reintroducing fire into the ecosystem (FSEIS pp. III-62 to III-66). Some people have questioned our policy of continued fire suppression in this area when we have stated that such actions have caused some of the vegetation and fuels problems we are dealing with. I recognize that severe stand-replacing fires are part of the fire history in this area; however, it would be irresponsible of me to consider not suppressing fires with the proximity of the project area to private lands and the powerline corridor.

- ***Maintaining and improving West Gold Creek's aquatic habitat by reducing existing and potential sediment risks from roads.***

Currently, the primary risk to aquatic habitat is sediment from existing roads. It is important that we reduce these sediment risks because of the important bull trout habitat (FSEIS pp. III-134 to III-136) in Gold Creek.

Activities planned in Alternative C Modified to reduce existing and potential sediment risks from roads include the decommissioning of 2.1 miles of road, road maintenance activities, and the removal and replacement of culverts at risk of failing should a landslide or flood occur.

Gold Creek and West Gold Creek are listed as impaired for temperature on the 303(d) list of the 2002 Integrated Report (IDEQ 2005) (FSEIS pp. III-144 to 145). Temperature data as recent as

September 2005 (Golder Associates 2006) indicate that water temperatures are well within the range that support bull trout in those reaches that bull trout are found (FSEIS pp. III-150 to 151). Through the implementation of the Inland Native Fisheries Strategy, the preferred alternative will have no effect on increasing stream temperatures in Gold and West Gold Creeks.

Gold Creek also has an approved sediment TMDL from its headwaters to Pend Oreille Lake. The draft implementation plan written by the IDEQ (2003) includes management actions proposed for the reduction of sediment in the Gold Creek drainage to consist of mine and mill site restoration, forest and mine road removal and improvement, and instream and riparian habitat restoration (IDEQ 2003). Because of the net reduction in sediment in the Gold Creek watershed achieved through past, present, and planned restoration work on the major mine sites (Idaho Lakeview and Conjecture mines), the repair of the Kick Bush Slide, as well as stream restoration, and road maintenance and decommissioning activities, Idaho Water Quality Standards (IDAPA 58.01.02.054) and the intent of the TMDL are being met.

Some people expressed concern about the effects of new road construction, decommissioning, and maintenance activities on sediment delivery to streams and aquatic habitat in West Gold and Gold Creeks (FSEIS pp. II-3 to II-4). Our analysis shows that removing two “at-risk” culverts would reduce the risk of sediment by at least 1,752 tons. If you combined this amount with that which potentially could occur at the culverts scheduled to be replaced, potential risk would be reduced by 2,572 tons (FSEIS p. III-147 to III-148). Although there would be a short-term increase in sediment generated from project activities, the use of Best Management Practices (BMPs), onsite direction and timing restrictions, along with the removal and replacement of culverts would result in a net decrease in sediment delivery (FSEIS pp. III-145 to III-148, III-155 to III-156 and Appendix K of the FSEIS). The use of BMPs and other protection measures, and the fact that all ground-disturbing activities would occur outside of Riparian Habitat Conservation Areas, means the risk of any sediment being transported into the lower reaches of West Gold and Gold Creeks is very low (FSEIS pp. III-156 to III-161).

Alternative C Modified will construct only 0.16 mile of permanent road that will be put in storage after use for the project. Since this road location is high on a ridge and nowhere near any live stream crossings, we don’t anticipate any sediment delivery over what was estimated for Alternative C in the FSEIS (pp. III-156 to III-158).

Another concern related to the effects of regeneration cutting and resulting canopy openings on water yield increases, sediment delivery to streams and aquatic habitat in West Gold and Gold Creeks (FSEIS pp. II-4 to II-5). Our analysis shows that with the selected alternative, timber cutting would have little effect on peak flows, sediment delivery to streams, and aquatic habitat (FSEIS pp. III-153 to III-161).

As discussed on pages III-148 to III-151 of the FSEIS, the West Gold channel is very resilient, as it has formed over time with the influences of increased water yield and debris flows from large-scale fires and rain-on-snow events. The analysis in the Watershed and Fisheries Environmental Consequences section shows that predicted water yield generated from creating openings in Alternative C would only increase by 3% (FSEIS p. III-158). Since the vegetation prescriptions in Alternative C Modified are no different than Alternative C, the value for water yield increase would be the same.

The analysis shows that there would be no cumulative effects to Gold Creek from increased water yield generated from Alternative C modified (FSEIS pp. III-169 to 170). While there may be some sediment generated from Alternative C Modified, our restoration accomplishments in the Gold Creek watershed have been substantial and are continuing. When the effects of mine cleanup and work done to the Kick Bush Slide in the Gold Creek watershed are considered, it is estimated that a net sediment reduction of at least 252 tons would occur in the Gold Creek Watershed (FSEIS, Table 24, p. III-168). There would be an additional reduction in the risk of sediment delivery by between 1,752 and 2,572 tons of sediment accomplished through road decommissioning, maintenance, and the removal of at-risk culverts (FSEIS pp. III-167 to III-168). Other reasonably foreseeable actions that are proposed in the Gold Creek Watershed include additional cleanup of mine tailings and waste rock, road maintenance activities, and stream restoration. These activities would contribute to further sediment decreases in the watershed in the future (FSEIS pp. III-166 to III-169).

For these reasons, I feel confident that Alternative C Modified meets the purpose and need and addresses public concerns by minimizing risks to water quality and fish habitat. Much work to improve water quality and fish habitat in the Gold Creek watershed has recently occurred, and more is planned. I believe that the implementation of Alternative C Modified, in conjunction with these improvements, will maintain and improve aquatic habitat throughout the Gold Creek watershed.

Other Alternatives Considered

The Interdisciplinary (ID) Team considered a reasonable range of alternatives as required in 40 CFR 1502.12(a). A total of eleven alternatives were considered, and four of those were considered in detail (FSEIS pp. II-7 to II-9 and II-9 to II-14). This section discusses the alternatives considered in detail and my rationale for not selecting them and alternatives not considered in detail and their reason for elimination.

Alternative A – No Action

Alternative A provides a baseline comparison of predicted environmental consequences associated with taking no action versus implementing any of the action alternatives. Under this alternative, no action would be taken to respond to the purpose and need. There would be no tree removal, no prescribed burning, no fuels reduction, and no road construction or decommissioning. Existing trends and uses, such as fire protection and recreation management, would continue (FSEIS p. II-9).

If this alternative were selected, natural processes, except influences from wildfire suppression, would continue. Ecosystem health and wildlife habitat would continue to decline, mortality from insects and disease would increase, and fuels would accumulate. These conditions would increase the risk of large stand-replacing fires, which would threaten developments such as the powerline corridor and private lands outside the project area (FSEIS p. III-18, III-62, III-105, III-109) In addition, risks of sediment delivery from existing culverts would continue (FSEIS pp. III-152 to III-153).

I did not select Alternative A because it would not meet the stated objectives in the purpose and need identified in Chapter I of the FSEIS. It would cause the further deterioration of forest vegetation and wildlife habitat, do nothing to restore the ecological benefits of fire, would continue to add to the existing fuels problem, posing unacceptable risks of wildfires to private developments. I strongly believe that it is important to accomplish our purpose and need in the

West Gold drainage. I believe an active restoration approach for both terrestrial and aquatic ecosystem conditions are most consistent with governing direction and the best available science contained in the Interior Columbia Basin Ecosystem Management Project Scientific Assessment and other assessments (FSEIS pp. I-1 to I-7). The No Action Alternative would not initiate such active restoration or a trend to bring this landscape toward desired conditions in the long-term.

Alternative B – The Proposed Action

Alternative B was our proposed action. It was proposed to accomplish the purpose and need using conventional logging systems where possible in order to make the project more economically efficient. The proposed temporary road construction would have made the project more economical to accomplish because it would have provided better access for skyline logging (instead of the more expensive helicopter method), fuels treatment, and planting (FSEIS pp. III-179 to III-180). Alternative B was identical to C in almost every way because the vegetation and fuel treatments, road maintenance, and culvert work were the same in each alternative. The differences between Alternatives B and C were that C did not propose any road construction and it would require more helicopter logging (see table A above).

I did not select this Alternative primarily because of public and other agencies concerns over the potential effects of road construction and sediment delivery on the aquatic habitats of West Gold and Gold Creek. Our analysis estimated that differences in sediment yields produced by Alternatives B and C would be primarily attributed to temporary road construction and to a lesser extent, from changes in logging systems (FSEIS pp. III-153 to 158). Activities proposed in Alternative B are predicted to generate 24.2 tons of sediment over the life of the project. Activities proposed in Alternative C are predicted to generate 8.7 tons of sediment over the life of the project. There was also a difference in the amount of time our modeling showed for the sediment to recover back to baseline--15 years for Alternative B, and 5 years for Alternative C (FSEIS p. III-153, figure 25).

I believe that the sediment predicted to be generated by either Alternative B or C would not pose a significant threat to the aquatic habitat, especially since there would be a large sediment risk reduction in West Gold and Gold Creeks. However, Alternative C is predicted to have the lowest sediment production of the two alternatives, and given the level of importance Gold Creek Watershed is to bull trout spawning habitat, choosing the lowest risk was the prudent decision to make.

Alternative D – Selective Cutting Alternative

Alternative D was developed after receiving public comments requesting we try to accomplish our purpose and need using selective cutting methods only, instead of regeneration cutting methods. The ID Team considered whether this could be done, but determined that selective cutting methods could not be used in units where root disease is extensive, without exacerbating the root disease problem. This effort is described in the FSEIS (FSEIS p. II-33) and in the section below as an alternative considered but eliminated. However, the team went ahead and developed an alternative that focused on where selective cutting could occur, dropping out all but one small regeneration cutting unit (FSEIS p. II-12).

If Alternative D were implemented there would be substantially less acres of activity, canopy openings and a lot less road miles constructed than in Alternatives B and C. Consequently, effects from proposed activities to most resources would be substantially less. However, Alternative D would not do as good a job of achieving our purpose and need as B or C (see the FSEIS, Table 4 and Chapter III Environmental Consequences of Alternative D for each resource analyzed).

This alternative would weakly achieve the first three objectives of our purpose and need in the areas that are treated. It would not treat the areas where our worst insect and disease infestations are, where fuels are the heaviest, and where Douglas-fir and grand fir are perpetuating these conditions. The health and productivity of forest vegetation and habitats would only be improved in a small portion of the watershed. Efforts to reduce sediment risks from roads would still occur as in Alternatives B and C, so the fourth objective of the purpose and need would be achieved at the same level.

For these reasons, I did not select Alternative D.

Alternatives Considered But Eliminated From Detail Study

Seven additional alternatives were developed by the interdisciplinary team and considered during scoping and project development, but dismissed from further study as explained in the FSEIS (pp. II-31 to II-34) and below.

Original Proposed Action

The current proposed action has evolved over several years and several different ID Team members. Since the first ID team, we have added and dropped different areas proposed for treatment. The very first proposal looked at all “high-risk stands” (stands that were not trending toward desired species compositions and structures, or stands at high risk of mortality--see project file for map). Various stands were dropped for the following reasons: difficult access, need to maintain corridors and secure areas for wildlife, high social value (areas around Bernard Peak), and potential effects on water yield. Other stands were added or dropped or their prescriptions changed as ground verification revealed new information making them higher or lower priority than we originally thought. Also, additional temporary roads were proposed for construction but were dropped when proposed locations were determined to be too risky or unfeasible. For these reasons, this alternative was eliminated from further consideration.

Use of Even-Aged Cutting Units Not Exceeding 40 Acres

An alternative was considered that would have limited new openings to 40 acres or less and would not make any existing openings greater than 40 acres. It was not carried into the detailed analysis for the following reasons:

- Smaller openings would not sufficiently address the current vegetation problems on a landscape level and adequately meet the Purpose and Need.
- Smaller openings spread across the landscape would fragment large blocks of interior forest habitat and would not help to promote historic patch sizes.
- Visual resource impacts of smaller openings over a more extensive area can be greater than large openings of similar structure.
- Smaller openings would not effectively reduce the fuel loading to a scale that could provide fuelbreaks at the subwatershed level.

- Many stands proposed for regeneration cutting are experiencing high mortality, and are expected to continue with this level of mortality in the future. From a hydrologic standpoint, many of the stands will be openings within the next 10 years, including those that are not proposed for treatment.

For these reasons the alternative was eliminated from detailed study.

Treat the Ecosystem Without Logging

We received comments requesting that we consider alternatives that strive to achieve our ecosystem restoration objectives without using timber cutting. The alternatives were suggested several different ways:

Prescribed Burning Only – This alternative was considered after we received suggestions that we use prescribed fire to reduce stand density and not cut trees. Using prescribed burning as the primary tool would not be effective at achieving the objectives of the purpose and need for most of the project area. Safe and controlled prescribed fires are planned in spring and fall when weather and moisture conditions help fire managers keep fire intensities and severities low. In stands where thinning is the objective, shady conditions and lack of continuous natural fuels would make burning in spring or fall difficult. Trees would not be thinned effectively with fire alone to achieve desired composition, cover, structure, and pattern. In order to get a fire to achieve the objectives of thinning in the shady stands, hotter and drier conditions would be necessary, and this would likely result in a lethal crown fire which could kill most of the trees.

In areas where the objective is to regenerate the stand, using fire to accomplish objectives in those stands would require igniting the stands in hot and dry conditions to produce a lethal fire that would kill enough of the trees and brush and create the openings needed for regenerating desired species. Such conditions would cause too great a risk of consuming more than just the trees in the areas proposed for regeneration and risk loss of control (see fire effects discussion in FSEIS “How Easily An Unwanted Fire Could Be Suppressed” pp. III-60 to III-61).

Therefore, because of the risk to resources and adjacent private property, the only stand that would be treated under this alternative would be Unit 26, where fuels are relatively light and prescribed underburning is already planned as the only method of treatment.

Although the other objective of our purpose and need (reducing sediment risks) could still be accomplished without treating the forest vegetation, little would be achieved to begin restoring terrestrial habitats. This alternative would also not meet Forest Plan standards for reforestation, reduction of susceptibility to insect and disease damage, site preparation and reduction of fire intensity and spread (see FSEIS, Chapter I). For these reasons, this alternative was dropped from further consideration and was eliminated from further study.

No Timber Cutting, Restoration Only - This alternative would be similar to the Prescribed Burning Only Alternative and for the same reasons described above, was eliminated from further consideration.

Accomplish Purpose and Need Without Using Commercial Logging – This alternative suggested accomplishing all the elements of the proposed action, including cutting trees, without selling the trees in a commercial logging operation. To carry out this alternative would mean that

either the cut trees would be left on site, or the Forest Service would have to pay someone to remove the trees. To leave the trees on site would add a large amount of fuel and increase breeding areas for insect infestations. It would make planting difficult and create areas inaccessible to some wildlife where logs were left. Prescribed burning would not be possible because of the large amount of fuels left on site. If a wildfire were to start in one of these areas, suppression would be extremely difficult as well. In addition, leaving merchantable trees on site would waste usable wood fiber that could just as easily be utilized as products. A timber sale provides us with a means of accomplishing our objectives at a reduced cost, to treat fuels more effectively, and results in a benefit of timber as a by-product.

This alternative would not meet Forest Plan standards for reforestation, reduction of susceptibility to insect and disease damage, site preparation, utilization of forest products, and reduction of fire intensity and spread (see Chapter I). For these reasons, this alternative was dropped from further consideration and was eliminated from further study.

Use of Horse Logging

We received a suggestion that we use horse logging to remove trees in the project area. Horse logging requires more roads for yarding logs than conventional logging systems because horses cannot skid logs as far. Also, the vast majority of the project area is too steep for horse logging. For these reasons, an alternative using horse logging was eliminated from further consideration.

Use of Selective Cutting For All Vegetation Treatment

We received two suggestions that we use selective cutting for all treatment areas including those that propose regeneration cutting. The project team reviewed every proposed regeneration unit to see if selective cutting was a feasible tool. After evaluating all the stands, the team concluded that selective cutting would not be effective to achieve the restoration objectives in most of the areas. This is because where regeneration cutting is proposed, not enough trees of desired species are available to maintain a stocked stand while removing undesirable and unhealthy trees.

The team considered whether we could strictly salvage log in the regeneration units and concluded that it would still not meet our vegetation restoration objectives. For these reasons, this alternative, which proposed using selective cutting for all proposed treatment areas, was eliminated from further consideration.

The team found one unit (08) that could be changed from an irregular shelterwood to an improvement cut, which would result in only portions of that unit meeting desired objectives. As a result of considering this alternative, the team decided to fully analyze Alternative D, which uses mostly selective cutting as the primary treatment method. In Alternative D, all but one of the regeneration units in the proposed action were dropped since they could not be treated effectively with selective cutting, and one other (unit 08) was converted to selective cutting. See Alternative D for more details.

Findings and Consistency with Laws, Regulations and Policy

Numerous laws, regulations and agency directives require that my decision be consistent with their provisions. The following discussion is not an all-inclusive listing, but is intended to provide information on the areas raised as issues or comments by the public or other agencies.

Consistency with other applicable laws and regulations not listed here are addressed under various resource Environmental Consequences sections in the FSEIS.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires analysis of projects to ensure the anticipated effects upon all resources within the project area are considered prior to project implementation (40 CFR 1502.16). The analysis for the West Gold Project followed the guidelines of NEPA as provided by the Council on Environmental Quality (CEQ). Alternatives were developed based on existing conditions, Forest Plan goals and objectives, and public concerns and recommendations. A total of four alternatives were considered in detail, including a no action alternative as required by NEPA (FSEIS pp. II-9 to II-14). An additional seven alternatives were briefly considered but eliminated from further study as described in Chapter II of the FSEIS (pp. II-31 to II-34). The range of alternatives is appropriate given the scope of the proposal, the public issues expressed, and the purpose and need for action as stated in Chapter I of the FSEIS (FSEIS p. I-4).

Endangered Species Act (ESA)

The Sandpoint District wildlife biologist, fisheries biologist, and botanist have evaluated Alternative C Modified in regard to threatened, endangered and sensitive wildlife, fish and plant species. Findings are disclosed in the biological assessments and biological evaluations located in the FSEIS (Appendix K) and summarized here.

- Implementation of Alternative C Modified will have *no effect* on water howellia, Ute ladies'-tresses or Spalding's catchfly or their habitats. All potentially suitable habitat for water howellia will be buffered from direct and indirect effects through implementation of INFS guidelines.
- This project will have *no effect* on white sturgeon because there is no habitat within the effects area. This project *may effect, but is not likely to adversely affect* bull trout. Bull trout currently inhabit the Gold Creek Watershed. Road related activities, including maintenance, obliteration, and culvert upgrades could produce a short-term increase in sediment delivery to streams in the watershed. However, these activities will reduce sediment delivery in the long term. Removal and upgrades of culverts will also immediately decrease the risk of sediment from crossing failures. Therefore, the long-term effects from the project are a net reduction in sediment and are a benefit to bull trout habitat. The U.S. Fish and Wildlife Service has reviewed the fisheries Biological Assessment for this project and has given their concurrence (see appendix K of the FSEIS for a signed concurrence letter).
- This project will have *no effect* on any threatened or endangered wildlife species or their habitat.

I believe the selected alternative is consistent with the Endangered Species Act.

Clean Air Act

The Forest-wide standard for air quality is to coordinate all Forest Service management activities to meet the requirements of the State Implementation Plans, Smoke Management Plan and Federal air quality standards. This will be done under the selected alternative, and burning will be conducted in a manner that will meet air quality requirements.

The monitoring of air pollutants during prescribed burning seasons is used to eliminate burning during times when such activities will result in violations of the State Standards, including unacceptable impacts to non-attainment areas. The North Idaho/Montana Airshed Group monitors smoke management for air quality; the Forest Service voluntarily ceases burning operations to avoid violation of State standards. The Idaho Panhandle National Forests coordinate and schedule burning activities to maintain air quality. Burning plans addressing smoke management are prepared by qualified personnel. The Sandpoint Ranger District is a member of this group and adheres to the group's restriction procedures. As monitoring units, the airshed groups may reduce burning, stop burning in specific areas, or cease burning entirely when meteorological or existing air quality conditions so warrant. Forest management burning is thereby regulated during the months of September through November (North Idaho Cooperative Smoke Management Plan).

Based on the above and my review of the air quality analysis (FSEIS pp. III-71 to III-74), I have concluded that this project meets all criteria to protect air quality.

Clean Water Act and Idaho State Water Quality Laws

The Clean Water Act (as amended, 33 U.S.C. 1323) directs the Forest Service to meet state, interstate and local substantive as well as procedural requirements with respect to control and abatement of pollution in the same manner and to the same extent as any nongovernmental entity. The Forest Service has the statutory authority to regulate, permit and enforce land-use activities on the National Forest System lands that affect water quality.

Under authority of the Clean Water Act, the Environmental Protection Agency and the States must develop plans and objectives that will eventually restore identified stream segments of concern. Gold Creek is currently a listed 303(d) water quality limited segment from the headwaters to Pend Oreille Lake by the Idaho Department of Environmental Quality (DEQ) (IDEQ 2005). The pollutant of concern is listed as temperature. West Gold Creek is also currently a listed 303(d) water quality limited segment from the headwaters to its confluence with Gold Creek. The pollutant of concern is also temperature (IDEQ 2005). Currently there is not an approved Total Maximum Daily Load (TMDL) for temperature on Gold and West Gold. There is an approved TMDL for sediment on Gold Creek from the headwaters of Gold Creek and Chloride Gulch to the Pend Oreille Lake. Generally, under this status of water quality limited, management activities should not further contribute pollutants of concern to the impaired water bodies.

The Idaho Department of Environmental Quality (IDEQ) designates beneficial uses to be protected for each water body in the state. Since both Gold and West Gold Creeks currently maintain cold-water biota and support spawning of bull trout and westslope cutthroat trout, they have a default designation for support of cold-water biota and salmonid spawning.

As described in Idaho Administrative Code (DEQ) Water Quality Standards (IDAPA 58.01.02) and the Clean Water Act, when water bodies are deemed to be not fully supporting their beneficial uses by the State (IDEQ), they are brought onto the 303(d) list as water quality limited and a TMDL is to be developed to establish the daily load of that pollutant that the water body can support without harming beneficial uses. Currently Gold Creek and West Gold are 303(d) listed as impaired for temperature from source to mouth in the 2002 Integrated 303 (d)/305(b) Report (IDEQ 2005). A TMDL for temperature has not yet been developed or approved for temperature on these streams. Until a TMDL is created the pollutant of concern should remain constant or decrease (IDAPA 58.01.02.054.04).

Through the implementation of Inland Native Fish Strategy (USDA, 1995) and the incorporation of riparian habitat conservation areas (RHCA) into the West Gold project, the proposed activities would not further degrade water quality with respect to temperature (IDEQ 2006, Steed personal communication 2006). The regulation of temperature is a key component of the riparian management objectives (RMO) in INFS and the reason for establishing RHCA. In terms of anthropogenic affects on stream temperatures, the greatest influence would be felt through increasing direct solar radiation to surface waters. The RHCAs will retain the canopy cover that prevents solar inputs to the streams. Additionally, temperatures in lower Gold Creek and West Gold are also regulated by ground water that keeps temperatures low in reaches used by bull trout (Golder Associates 2006).

In the 2002 Integrated 303(d)/305(b) Report, Gold and West Gold Creeks are also listed as having approved TMDL for sediment. Upon further investigation with the IDEQ, it was found that the West Gold listing was an artifact of the restructuring of assessment units that occurred in 1998, and is incorrect (Steed personal communication 2006). The approved TMDL for Gold Creek contains a sediment reduction allocation of 2256.3 tons/yr for Gold Creek and Chloride Gulch from their headwaters to Lake Pend Oreille (IDEQ 2000). The draft implementation plan written by the IDEQ (2003) includes management actions proposed for the reduction of sediment in the Gold Creek drainage to consist of mine and mill site restoration, forest and mine road removal and improvement, and in-stream and riparian habitat restoration (IDEQ 2003).

As is documented in the West Gold FSEIS, there will be a net reduction in sediment in the Gold Creek watershed and the cumulative effects area of the West Gold project. This meets Idaho Water Quality Standards (IDAPA 58.01.02.054) and the intent of the TMDL through sediment reductions achieved through past, present, and planned restoration work on the major mine sites (Idaho Lakeview and Conjecture mines), the repair of the Kick Bush Slide, as well as stream restoration, and road maintenance and decommissioning activities (IDEQ 2006, Steed personal communication 2006).

The Forest Service will continue to work in cooperation with the IDEQ, IDL and interested local parties to develop a TMDL implementation plan in Gold Creek. In the interim, any activities we undertake or permit on National Forest lands will be designed to substantially reduce pollutants of concern, where feasible. The timeframe for completion of the implementation plan has not yet been determined. Information and recommendations from the Gold Creek Ecosystem Assessment at the Watershed Scale (USDA Forest Service 2002) will be carried forward into the TMDL implementation plan. Other recent documents such as the Engineering Evaluation/Cost Analysis (EECA) for the Idaho Lakeview Operable Unit (2002) and Conjecture Mine (2006) will also be used in the implementation plan.

Based on the Watershed and Fisheries analyses in Chapter III of the FSEIS (pp. III-127 to III-172), the design of Alternative C, and mitigation and monitoring requirements (Chapter II), I believe Alternative C Modified would comply with state and Federal water quality regulations by not degrading water quality with respect to temperature and by ultimately reducing sediment within the watershed.

National Historic Preservation Act

Cultural resource surveys have been completed on all areas where ground-disturbing activities will occur. This action is not expected to affect any cultural resources. Recognizing that the potential exists for unidentified sites to be encountered and disturbed during project activity, contract provision C6.24# will be included in all contracts. This provision allows the Forest Service to unilaterally modify or cancel a contract to protect cultural resources regardless of when they are identified. This provision will be enforced if a site is discovered after an activity begins.

Heritage and Tribal interests are regulated by federal laws that direct and guide the Forest Service in identifying, evaluating and protecting heritage resources. We have consulted with the Kalispel Tribe and they had no concerns about the project (Heritage project file). We have also consulted with the State Historic Preservation Office and they reviewed and concur with our determination of effects. Based on the heritage resource reports in the project file and the design features that would be used if cultural resources were discovered during the project, I have concluded that Alternative C Modified complies with the National Historic Preservation Act (FSEIS p. II-27 and section M of project file).

Environmental Justice Act

Executive Order 12898, issued in 1994, ordered federal agencies to identify and address the issue of environmental justice; or the adverse human health and environmental effects that disproportionately impact minority and low-income populations. Based on the composition of the affected communities and the cultural and economic factors, the Selected Alternative will have no adverse effects to human health and safety or environmental effects to minority, low-income, or any other segments of the population (FSEIS p. III-188 and Section P of the project file).

Interior Columbia Basin Ecosystem Management Project

This analysis was guided by integrated ecological assessments and strategies that resulted in the combined Bureau of Land Management and Forest Service project known as the Interior Columbia Basin Ecosystem Management Project (ICBEMP). The ICBEMP project is discussed in more detail in the FSEIS (p. I-4).

Although the scientific findings are not part of the Forest Plan for the Idaho Panhandle National Forests, they are expected to provide guidance for the revision of the Forest Plan. Because of the tentative nature of the direction in the ICBEMP Draft EIS, no decisions or guidelines for analysis will be made using this direction; however, the science behind the Draft EIS is used extensively in the analysis for the West Gold project.

Northern Region Overview

The Northern Region Overview is briefly described in the FSEIS (p. I-5). The Overview findings conclude that there are multiple areas of concern in the Northwest Zone of the Region (which includes the Idaho Panhandle National Forests), but that "this subregion holds the greatest opportunity for vegetation treatments and restoration with timber sales...Aquatic restoration should be focused on specific needs based on the zone aquatic restoration strategy" (Northern Region Overview Summary, USDA October 1998, p. 9).

The Overview goes on to state, "The timber management (timber harvest) tool best fits with the forest types in northern Idaho and is essential, for example, to achieve the openings needed to restore white pine and larch, and maintain upland grass/shrub communities. It can enhance

terrestrial/watershed objectives where timber funds are used to close and improve roads. Aquatic restoration could tie with assessing road access needs and obliteration of nonessential [roads]” (Northern Region Overview Summary, USDA October 1998, p. 33).

The activities that will occur under the Selected Alternative are consistent with the findings and recommendations of the Northern Region Assessment.

Pend Oreille Geographic Assessment

The Geographic Assessment for the Pend Oreille Lake area, which includes the Pend Oreille Lake sub-basin, is discussed in the FSEIS (p. I-5). The assessment has identified ecosystem trends and changes over the last 100 to 200 years. Several Pend Oreille Geographic Assessment findings relate to the West Gold project area (FSEIS p. I-5).

The assessment provides a description of the historic and current ecological, social, and economic conditions of the subbasin. The condition descriptions were used to characterize the analysis areas planned for treatment. Findings of the Geographic Assessment are very similar to more broad-scale conclusions found at the Columbia Basin and Northern Region scales. The Geographic Assessment suggests converting shade-tolerant/drought and fire-intolerant species to shade-intolerant/drought and fire-tolerant species. Findings of the Geographic Assessment also indicate that there is an increased risk of stand-replacement fire on the drier habitat types due to fuel accumulations resulting from fire exclusion. The objectives of this project are consistent with the findings and recommendations of the Geographic Assessment.

Forest Plan for the Idaho Panhandle National Forests

All resource plans are to be consistent with the Forest Plan [16 U.S.C. 1604(i)]. The Forest Plan guides all natural resource management activities [36 CFR 219.1(b)]. All administrative activities affecting the National Forest must be based on the Forest Plan [36 CFR 219.10(e)].

Chapter II of the Forest Plan describes in detail Forest-wide management direction, goals, objectives, research needs, desired future condition and standards applicable to the Idaho Panhandle National Forests (IPNF). The land allocation decisions made in the Forest Plan allocated lands within the project analysis areas to Management Areas 1, 4, 9, and 19. Chapter III of the Forest Plan describes the management area direction for each land allocation for the IPNF.

I have evaluated features of the selected alternative against Forest Plan goals, as well as the standards for consistency with the Forest Plan. These Forest Plan goals and standards are discussed in Chapter I of the FSEIS (p. I-10 to I-13), with disclosures of Forest Plan consistency for each resource in Chapter III.

All management activities included in the selected alternative are in full compliance with Forest Plan goals, objectives and standards, including the Inland Native Fish Strategy amendment to the Forest Plan. For additional discussion of consistency with the Forest Plan, please refer to the discussion under “National Forest Management Act,” in this Record of Decision.

Final Rule – Administration of the Forest Development Transportation System

In January 2001, the Forest Service Manual, which governs regulations concerning the management, use and maintenance of the National Forest Transportation (Road) System, (Chapter 7700) was revised with a “Final Rule.” The Final Rule set forth that if a forest level roads analysis has not been completed, the Responsible Official (in this case, the Sandpoint District Ranger) determines whether a roads analysis is needed at the project scale, and if so, what level of analysis is necessary to support a project-level decision. On February 5, 2002 the Sandpoint District Ranger established direction for a roads analysis for the West Gold project (project file). I find this analysis provided good information and sound reasoning for all road construction and management planned for this project. See the FSEIS, Chapter III, Roads and Access Management for more information.

National Forest Management Act (NFMA)

The National Forest Management Act and accompanying regulations require that several specific findings be documented at the project level. Most provisions of NFMA directly applicable to projects and activities are now addressed in the 2005 planning rule through 36 CFR 219.2(c) and 219.12(b)(2). There it directs that these provisions be addressed in the Forest Service Directives System. Required project level NFMA consistency findings are described in the Forest Service Manual at 1921.12 (Vegetation Management Requirements from National Forest Management Act) and in the Forest Service Handbook at 1909.12 29, 29.1, and 29.2 (Application of Plan to Projects).

FSH 1909.12.29.2 - Finding of Consistency Documentation Required for Project Decisions

The project or activity decision document must include a finding that the project or activity is consistent with the land management plan (36 CFR 219.8(e)).

Consistency with the Forest Plan is discussed in Chapter III of the FSEIS, by resource area. Upon review of the information disclosed in the West Gold Project FSEIS, Chapter III effects analysis for each resource, I find that my decision is consistent with the Forest Plan as amended by the Inland Native Fish Strategy (INFS).

The activities will provide for and maintain a diversity of plant and animal communities as described in this decision document. The selected alternative will increase vegetation diversity by reforesting 898 acres with white pine, larch, and ponderosa pine seedlings and reducing competition (through selective cutting) on 411 acres of stands containing desired species. Diversity will also be improved by reintroducing fire to 1,077 acres of the forest using prescribed fire (FSEIS, pp. III-16 to III-24; pp. III-28 to III-32, and pp. III-97 to III-117).

Activities will either not affect or will maintain sufficient habitat for viable populations of existing native vertebrate species and management indicator species consistent with the multiple-use objectives established in the Forest Plan (FSEIS, Wildlife analysis pp. III-108, III-112, III-115, III-119, III-126, III-127, and Fisheries analysis pp. III-160-III-171, III-170 to III-172).

Projects or activities that harvest timber must also include a statement of consistency with the National Forest Management Act (NFMA at 16 USC 1604).

16 USC 1604 (g) (3) (E) insure that timber will be harvested from National Forest System lands only where—

(i) soil, slope, or other watershed conditions will not be irreversibly damaged;

Alternative C Modified conserves soils and water resources and will not result in significant or permanent impairment of the productivity of the land. Water quality is maintained through the use of Best Management Practices, streamside buffers, logging systems designed for minor impacts, and site-specific mitigation measures (FSEIS pp. II - 15, II-19 to II-21, and II-24 to II-27). Additionally, watershed conditions are improved both in the short and long term through reduction of chronic sediment sources and reducing the risk of culvert failures (FSEIS pp. III-155 to III-156). Soil resources are protected by minimizing erosion, compaction and displacement with mitigation measures (FSEIS pp. II-24 to II-27), by reducing tractor yarding through the use of less impactful systems such as skyline yarding and helicopter yarding, and by maintaining coarse woody debris (FSEIS pp. III-82 and III-88).

(ii) there is assurance that such lands can be adequately restocked within five years after harvest;

The IPNF Forest Plan Monitoring and Evaluation Reports (1998, page 7, 2003, p. 10) show that such lands can be adequately restocked within five years. Managed stands will be stocked within a timely manner (FSEIS, Vegetation Treatment Definitions, p. II-10). The Vegetation section in Chapter III and the Vegetation project file contain information pertaining to past reforestation within the project area.

(iii) protection is provided for streams, streambanks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat;

Water bodies and their values are appropriately protected or improved (FSEIS pp. II-19 to II-21 and III-151 to III-172). The WATSED water yield model that was used to estimate increases of water yield from proposed activities, predicted that any increase in water yield would be slight and there would be little measurable effect in the duration and intensity of peak flows (FSEIS pp. III-158 to III-161). The small degree of change in sediment yield shows minimal overall impacts to the watershed (FSEIS p. III-153 to III-158). See also previous discussions on pages ROD-13 to ROD-16 regarding aquatic habitat and potential sediment risks from roads, and the Clean Water Act discussions on pages ROD-21 and ROD-22.

(iv) the harvesting system to be used is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber;

Economic factors were considered in my decision, however; they were not overriding. After reviewing the three action alternatives, it was clear to me that they all would result in a positive financial return (FSEIS pp. III-178 to III-180). Although Alternative C Modified would provide less of a return than Alternative B, it would still provide a more

favorable return than D, while at the same time accomplishing our Purpose and Need very well, and having negligible effects on the environment.

16 USC 1604 (g) (3) (F) insure that clearcutting, seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an evenaged stand of timber will be used as a cutting method on National Forest System lands only where—

- (i) for clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate, to meet the objectives and requirements of the relevant land management plan;**

The Selected Alternative will employ the use of even-aged management systems (regeneration cutting) on approximately 898 acres. Silvicultural prescriptions may include: irregular shelterwood, seedtree with reserves, and final removal with reserves. The size of open areas will range from approximately five acres to several hundred acres. Most of the trees will be removed with this type of cutting for the purpose of providing growing space for planted or natural seedlings. Both live and dead trees will be retained in an irregular spacing to provide wildlife habitat, maintain visual quality, and provide shelter for planted seedlings and a seed source for natural regeneration. Clearcutting is not planned.

I have reviewed the vegetation information in the FSEIS and Project Files and the site-specific management objectives within the Forest Plan and have determined that even-aged management practices (with reserve trees as described in the FSEIS p. II-10) are the appropriate method to achieve the multiple resource objectives on the sites selected for harvest. I have received Regional Forester approval for openings over 40 acres in size as required by FSM 2470.1 (project file, Vegetation section).

- (ii) the interdisciplinary review as determined by the Secretary has been completed and the potential environmental, biological, esthetic, engineering, and economic impacts on each advertised sale area have been assessed, as well as the consistency of the sale with the multiple use of the general area;**

The EIS assesses potential physical, biological, aesthetic, cultural, engineering, and economic impacts of the selected alternative and is consistent with multiple uses planned for the area. Forest Plan consistency is located throughout the FSEIS Chapter III sections and also previously mentioned in the section titled “Forest Plan for the Idaho Panhandle National Forests.”

- (iii) cut blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain;**

The visual quality analysis in the FSEIS on pp. III-172 to III-178 shows how the project treatments are shaped and blended with the natural terrain to the extent practicable and all are designed to comply with Forest Plan visual quality objectives.

- (iv) there are established according to geographic areas, forest types, or other suitable classifications the maximum size limits for areas to be cut in one harvest operation, including provision to exceed the established limits after appropriate public notice and review by the responsible Forest Service officer one level above the Forest Service officer who normally would approve the harvest proposal: Provided, that such limits shall not apply to the size of areas harvested as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm;**

Cutting in 16 units as proposed would result in contiguous openings of greater than 40 acres in size. An update letter dated September 11, 1998 provided a 60-day public notification period on this issue as required by Regional Forest Service Guidelines (see Project File, Public Involvement Section). A request for approval by the Regional Forester to exceed the 40-acre openings limit was submitted to the Regional Office and has been approved (project file). Details are located in Attachment B of this ROD, in the FSEIS p. III-20, and the Vegetation section of the project file.

- (v) such cuts are carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and aesthetic resources, and the regeneration of the timber resource.**

After review of the FSEIS, I find that the selected alternative will provide the desired effects on vegetation resources within the project areas, and will protect soil, water, fish, wildlife, recreation, aesthetic values, and the regeneration of the timber resource. Please refer to the discussions of effects to resources in Chapter III of the FSEIS.

Identification of the Environmentally Preferable Alternative

The Council on Environmental Quality defines the environmentally preferable alternative as “ *the alternative that will promote the national environmental policy as expressed in NEPA’s Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment, it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.*” This definition could be generalized to mean the alternative that best balances negative impacts with benefits.

Identification of the environmentally preferable alternative requires consideration of conditions that are present or foreseeable in both the short- and long-terms. Although Alternative A would produce the least negative direct and indirect effects to most resources in the short term, it is not environmentally preferable because there would still be sediment risks from road drainage problems and it would provide the least amount of benefits to forest health and productivity. Alternative D would provide some benefits to forest health and productivity, and have the least negative effects of the action alternatives. Both Alternatives B and C, would provide the greatest benefits to forest health and productivity, but Alternative C (no new road construction) would be environmentally preferable because it would produce less sediment than Alternative B, have fewer ground-disturbing impacts, provide a low risk to aquatic ecosystems, and result in a greater overall net sediment reduction in the Gold Creek watershed.

Documents and Project Files

This Record of Decision summarizes some of the analyses that have led to this point in the process. More reports and analyses have been referenced or developed during the course of this project and are part of the project files. All project files for the West Gold Project are available for review by the public. Please contact A.J. Helgenberg at the Sandpoint Ranger District (208) 265-6643, to review the files.

Appeal Rights and Implementation

This decision is subject to appeal pursuant to 36 CFR 215.14. A written Appeal must be submitted within 45 days following publication of the notice of this decision in the Spokesman Review Newspaper published in Spokane, Washington. Send Appeals to:

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

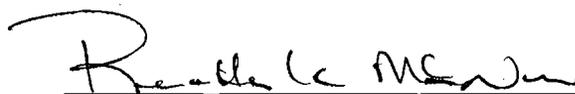
It is the appellant's responsibility to provide sufficient written evidence and rationale to show why my decision should be remanded or reversed. An appeal submitted to the Appeal Deciding Officer becomes a part of the appeal record. An appeal must meet the content requirements of 36 CFR 215.14 which state:

- State that the document is an appeal filed pursuant to 36 CFR part 215;
- List the name and address of the appellant and, if possible, a telephone number;
- Identify the decision document by title and subject, date of the decision, and name and title of the Responsible Official;
- Identify the specific change(s) in the decision that the appellant seeks or portion of the decision to which the appellant objects;
- State how the Responsible Official's decision fails to consider comments previously provided, either before or during the comment period specified in 36 CFR 215.6 and, if applicable, how the appellant believes the decision violates law, regulation, or policy.

Your appeal will be dismissed if the preceding information is not included in the Notice of Appeal.

If no appeal is received, implementation of this decision may occur five business days from the close of the 45-day appeal-filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

For more information regarding the project, please contact Albert Helgenberg, Interdisciplinary Team Leader at the Sandpoint Ranger District, (208) 265-6643.



RANOTTA K. MCNAIR
Forest Supervisor

5/30/06
Date

Attachment A – Stand Information

WEST GOLD ALTERNATIVE C STAND TREATMENTS								
Unit	Stand ID	Acres	Size Class	Forest Cover Type	Alternative C Prescription	Alt C Harvest system	Fuels Treatment	Reforestation
06	63201001	3.57	IMSA	DF	Thin	S	LL	NONE
06	63201043	7.07	IMSA	DF	Thin	S	LL	NONE
07	63302032	22.87	IMSA	L	Thin/Group Select	S	UB	NONE
08	63301034	38.23	IMSA	DF	Irregular Shelterwood	S	UB	PP/WL
09	63301025	23.86	IMSA	DF	Irregular Shelterwood	S	UB	WL/WP
10	63301013	8.81	IMSA	DF	Thin	S	LL	NONE
10	63302028	16.59	MHRS	PP	Thin/Group Select	S	LL	NONE
11	63302042	9.97	IMSA	DF	Thin/Group Select	S	LL	NONE
12	63302043	12.60	IMSA	GF/WH	Seedtree w/reserves	S	UB	WL/WP
13	63302004	10.87	IMSA	L	Irregular Shelterwood	H	UB	WP/WL
15	63302004	4.44	IMSA	L	Irregular Shelterwood	H	UB	WL/WP
16	63302046	19.43	IMSA	DF	Rehabilitation	H	UB	WL/WP

Size Class

IMSA – Immature sawtimber
 MHRS- Mature high risk
 MULT – Multistory
 SAWT – Sawtimber
 IPOL – Immature Pole

Forest Cover

DF – Douglas fir
 GF – grand fir
 WH – western hemlock
 LP – lodgepole pine
 PP – ponderosa pine
 L - larch
 C - cedar

Harvest System

T – tractor
 S – skyline
 H – helicopter

Fuels

UB – underburn
 LL – limb and lop
 GP – grapple pile
 WTY – whole tree yard

Reforestation

WL – western larch
 WP – white pine
 PP – ponderosa pine

WEST GOLD ALTERNATIVE C STAND TREATMENTS								
Unit	Stand ID	Acres	Size Class	Forest Cover Type	Alternative C Prescription	Alt C Harvest system	Fuels Treatment	Reforestation
17	63302002	18.36	IMSA	GF/WH	Seedtree w/reserves	S	UB	WL/WP
17	63302004	34.19	IMSA	L	Seedtree w/reserves	H	UB	WL/WP
18	63302045	14.15	IMSA	LP	Irregular Shelterwood	S	UB	WL/PP/WP
19	63302045	13.48	IMSA	LP	Thin	T	GP	NONE
19	63302045	7.61	IMSA	LP	Thin	S	GP	NONE
20	63302021	35.87	IMSA	C	Thin/Group Select	S	LL	NONE
21	63302049	13.24	IMSA	DF	Irregular Shelterwood	S	UB	WL/WP
22	63302003	18.18	IMSA	DF	Thin/Group Select	S	LL	NONE
23	63302020	10.18	IMSA	C	Irregular Shelterwood	H	UB	WL/WP
23	63302020	3.90	IMSA	C	Irregular Shelterwood	S	UB	WL/WP
23	63302022	22.79	IMSA	DF	Irregular Shelterwood	H	UB	WL/WP
23	63302022	8.13	IMSA	DF	Irregular Shelterwood	S	UB	WL/WP
23	63302023	32.03	IMSA	DF	Irregular Shelterwood	H	UB	WL/WP
23	63302023	39.04	IMSA	DF	Irregular Shelterwood	S	UB	PP/WL/WP

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Reforestation

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WEST GOLD ALTERNATIVE C STAND TREATMENTS								
Unit	Stand ID	Acres	Size Class	Forest Cover Type	Alternative C Prescription	Alt C Harvest system	Fuels Treatment	Reforestation
24	63202008	12.29	IMSA	DF	Irregular Shelterwood	S	UB	PP
24	63202031	14.66	IMSA	L	Irregular Shelterwood	H	UB	PP/WL
24	63202032	19.29	IMSA	DF	Irregular Shelterwood	H	UB	PP
24	63202037	20.68	IMSA	DF	Irregular Shelterwood	H	UB	PP/WL
24	63202037	7.55	IMSA	DF	Irregular Shelterwood	S	UB	PP/WL
24	63202038	3.11	IMSA	DF	Irregular Shelterwood	H	UB	PP
24	63202038	7.13	IMSA	DF	Irregular Shelterwood	S	UB	PP
24	63302013	15.95	IMSA	DF	Irregular Shelterwood	H	UB	PP
25	63202032	4.80	IMSA	DF	Thin/Group Select	H	WTY	NONE
25	63202038	5.24	IMSA	DF	Thin/Group Select	H	WTY	NONE
26	63202025	28.58	MHRS	PP	Underburn Only	None	UB	NONE
27	63202004	21.17	IMSA	DF	Rehabilitation	H	SL/UB	PP/WL/WP
27	63202004	19.34	IMSA	DF	Rehabilitation	S	SL/UB	PP/WL/WP
27	63202020	6.67	MHRS	GF/WH	Rehabilitation	H	SL/UB	PP/WL/WP

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WEST GOLD ALTERNATIVE C STAND TREATMENTS								
Unit	Stand ID	Acres	Size Class	Forest Cover Type	Alternative C Prescription	Alt C Harvest system	Fuels Treatment	Reforestation
27	63202027	9.92	IMSA	DF	Rehabilitation	H	SL/UB	PP/WL/WP
27	63202027	17.22	IMSA	DF	Rehabilitation	S	SL/UB	PP/WL/WP
27	63202028	11.75	SAWT	DF	Rehabilitation	H	SL/UB	PP/WL/WP
27	63202028	22.00	SAWT	DF	Rehabilitation	S	SL/UB	PP/WL/WP
27	63202041	3.13	MHRS	C	Rehabilitation	H	SL/UB	PP/WL/WP
27	63202048	4.55	MLRS	DF	Rehabilitation	S	SL/UB	PP
28	63302007	23.73	IMSA	GF/WH	Thin	H	LL	NONE
29	63202006	12.71	IMSA	DF	Rehabilitation	S	SL/UB	WL/WP
30	63202042	2.27	MULT	L	Final Removal w/Reserves	H	LL	NONE
31	63202002	45.35	IMSA	GF/WH	Irregular Shelterwood	H	UB	PP/WL
31	63202003	72.17	IMSA	DF	Irregular Shelterwood	H	UB	PP/WL
31	63202014	3.28	IMSA	DF	Irregular Shelterwood	H	UB	PP/WL
31	63202018	43.04	IMSA	DF	Irregular Shelterwood	H	UB	PP/WL
31	63202019	37.22	MLRS	GF/WH	Irregular Shelterwood	H	UB	PP/WL/WP

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WEST GOLD ALTERNATIVE C STAND TREATMENTS								
Unit	Stand ID	Acres	Size Class	Forest Cover Type	Alternative C Prescription	Alt C Harvest system	Fuels Treatment	Reforestation
31	63202022	14.33	IMSA	DF	Irregular Shelterwood	H	UB	PP/WL
31	63202023	2.88	IMSA	LP	Irregular Shelterwood	H	UB	PP/WL
31	63202024	13.44	MHRS	LP	Irregular Shelterwood	H	UB	PP
32	63202017	13.82	IMSA	DF	Thin & Group Select	H	UB	NONE
33	63202023	6.71	IMSA	LP	Thin	H	UB	NONE
34	63202026	4.09	IMSA	DF	Thin & Group Select	H	UB	NONE
35	63201024	40.25	MHRS	L	Irregular Shelterwood	H	UB	NONE
35	63201025	21.96	MHRS	L	Irregular Shelterwood	H	UB	NONE
36	63201043	31.41	IMSA	DF	Thin & Group Select	H	UB	NONE
37	63201010	7.67	IMSA	DF	Thin & Group Select	H	UB	NONE
37	63201011	4.82	MHRS	DF	Thin & Group Select	H	UB	NONE
38	63201003	9.47	IMSA	DF	Thin & Group Select	H	UB	NONE
38	63201004	8.23	IMSA	PP	Thin & Group Select	H	UB	NONE
38	63201007	7.02	IMSA	DF	Thin & Group Select	H	UB	NONE

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Reforestation

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 WP – white pine
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WEST GOLD ALTERNATIVE C STAND TREATMENTS								
Unit	Stand ID	Acres	Size Class	Forest Cover Type	Alternative C Prescription	Alt C Harvest system	Fuels Treatment	Reforestation
39	63201014	4.98	SAWT	DF	Thin & Group Select	H	UB/LL	NONE
39	63201032	14.88	MULT	PP	Thin & Group Select	H	UB/LL	NONE
40	63302007	11.37	MULT	GF/WH	Thin	H	LL	NONE
41	63202008	23.01	IMSA	DF	Irregular Shelterwood	H	UB	PP
41	63202009	9.20	IMSA	GF/WH	Irregular Shelterwood	H	UB	PP
41	63202038	7.19	IMSA	DF	Irregular Shelterwood	H	UB	PP
41	63202040	13.43	IPOL	LP	Irregular Shelterwood	H	UB	PP
42	63202026	10.09	IMSA	DF	Thin & Group Select	H	UB	NONE
42	63202036	7.83	IMSA	DF	Thin & Group Select	H	UB	NONE
42	63202042	5.43	MULT	L	Thin & Group Select	H	UB	NONE
43	63302003	8.12	IMSA	DF	Thin	H	LL	NONE
44	63302007	63.54	MULT	GF/WH	Thin	H	LL	NONE
45	63302021	7.34	IMSA	DF	Irregular Shelterwood	H	GP	WL/WP
46	63302049	6.96	IMSA	DF	Irregular Shelterwood	H	UB	WP/WL

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 H – helicopter

Fuels

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 GP – grapple pile
 WTY – whole tree yard

Reforestation

WL – western larch
 WP – white pine
 PP – ponderosa pine

WEST GOLD ALTERNATIVE C STAND TREATMENTS								
Unit	Stand ID	Acres	Size Class	Forest Cover Type	Alternative C Prescription	Alt C Harvest system	Fuels Treatment	Reforestation
48	63302049	14.06	IMSA	DF	Thin/Group Select	H	LL	NONE
	TOTAL	1,337.79						

Size Class

IMSA – Immature sawtimber
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Reforestation

WL – western larch
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 PP – ponderosa pine

Attachment B – Openings Greater Than 40 Acres

The following table identifies those stands that will exceed 40 acres in size, either due to the size of the proposed unit, or the size of the unit in conjunction with adjacent openings. For the purposes of this analysis, past regeneration cut areas were no longer considered created openings when both vegetation and watershed conditions met management objectives.

Table B-1. West Gold Project proposed new openings from vegetation treatments and connected openings from past cutting that would create openings greater than 40 acres.

DEIS Unit Number	DEIS Unit Stand Number(s)	Silvicultural Prescription*	Estimated New Opening Acres	Adjacent Existing Opening Acres**	Total Estimated Opening Acres
9	633-01-025	ISW	24	61	85
12	633-02-043	ST with reserves	13	143	156
13,15,16,17,18	633-02-002 633-02-004 633-02-045 633-02-046	ISW, R, ST with reserves	101	n/a	101
21, 46	633-02-049	ISW	20	56	76
23	633-02-020 633-02-022 633-02-023	ISW	116	17	133
24, 27, 29, 41	632-02-008 632-02-031 632-02-032 632-02-037 632-02-038 633-02-013 632-02-004 632-02-020 632-02-027 632-02-028 632-02-041 632-02-048 632-02-006 632-02-009 632-02-040	ISW, R	283	59	342
31	632-02-002 632-02-003 632-02-014 632-02-018 632-02-019 632-02-022 632-02-023 632-02-024	ISW	232	n/a	232
35	632-01-024 632-01-025	ISW	62	n/a	62

*ISW = Irregular Shelterwood, ST = Seed tree, R = Rehabilitation

**Existing openings include natural and human-caused openings

Attachment C – Design Features of the Selected Alternative

The following design features are listed in Chapter II of the FSEIS where they include mitigation effectiveness ratings.

Features Designed to Reduce Sediment

Temporary and Classified Road Decommissioning to Improve Aquatic Habitat - All temporary and classified roads identified for decommissioning or storage would be obliterated with appropriate techniques. These may include full and partial recontouring; removing all culverts; stabilizing fill slopes and restoring stream channel crossings back to natural grade. Seeding, fertilizing, and placement of woody debris would follow to establish desired vegetation and prevent noxious weed spread.

Hydro-mulching - All road construction would require hydro-mulching on soil disturbance sites within critical areas such as wet areas. Mulching would occur immediately after road construction is completed.

Features Related to Vegetation Restoration

Post-cutting Treatments – In regeneration units, site preparation, fuels treatment, and planting activities would occur within five years following timber cutting or the start of rehabilitation. Site preparation and/or fuels treatment may include a combination of prescribed burning, underburning, grapple piling and hand piling, depending on post-cutting conditions.

Openings Over 40 acres – Cutting in 16 units as proposed would result in contiguous openings of greater than 40 acres in size. An update letter dated September 11, 1998 provided a 60-day public notification period on this issue as required by Regional Forest Service Guidelines (see Project File, Public Involvement Section). A request for approval by the Regional Forester to exceed the 40-acre openings limit was submitted to the Regional Office and has been approved (project file).

No Logging Will Occur in Old Growth – Tree cutting and/or harvest will not occur in stands allocated as old growth.

Retention of Large Old Trees in Stands Not Designated as Old Growth – Within some units there are portions of small stands (<25 acres) with groups of large old trees that are not defined as old growth. Marking guidelines would specify that these groups of trees would be retained.

Features Related to Roads and Access Management

Unclassified Road Segments – Approximately 0.3 mile of a one-mile unclassified road (2707UF) would be converted to a classified road to maintain access to a dispersed recreation site (see figure 3, Appendix I). The remaining 0.7 mile of road would be decommissioned to stop existing motorized use through a plantation. Another unclassified road segment about 40 to 50 feet long at the downstream end of West Gold Creek is planned for decommissioning. This segment, which leads to a dispersed campsite, contributes sediment to the stream.

Transportation, Maintenance and Safety on Roads - Log hauling and some yarding and decking of logs would occur along Roads 2707 and 278. Haul would occur out Road 332 (the Bunco Road) to the west. Haul routes would be posted with warning signs indicating heavy truck traffic. No hauling would occur on weekends and holidays to reduce safety hazards during high use times by visitors. Dust abatement would be used as needed on National Forest roads to control dust and maintain driver safety.

Management of Gated Roads During Project Activities – During logging activities and during bow and firearm hunting seasons, existing gated roads in the project area would remain closed to all motorized vehicles not associated with the logging operation. While using these roads, the purchaser would not be allowed to use motorized vehicles to gather firewood, hunt or transport big game animals from behind the gates.

Management of Motorized Access on Gated Roads After Project is Completed – The following roads, which are currently gated and closed to all wheeled motorized vehicles, would retain their current restricted access: Roads 2708A, 278A, 278B, and 278D. Roads 2707A and 2707AA would remain open to snowmobile use in the winter when Road 332 is plowed, and to motorized vehicles less than 50 inches in width except during soft roadbed conditions. All other roads listed above would remain closed to all public wheeled motor vehicle access. See table 26 in Chapter III for details.

Features Related to Timing of Activities

Timing of Contracted Activities – The timber sale area would be split into separate subdivisions. The intent of the subdivision is to limit the length of time most of the contracted activities take place within a specific area. This will expedite the timely treatment of fuels, provide for wildlife security and reduce the potential for local access conflicts.

Timing of Road Decommissioning – Unless circumstances change during implementation that would extend the duration of time a road is needed, roads would be decommissioned within the following timeframes:

- Temporary roads or existing road segments proposed for decommissioning that are not needed for post-cutting activities (e.g. fuel treatment or planting) would be decommissioned the same season following cutting activities or no later than the following season.
- Other road segments proposed for decommissioning that are needed for post-cutting activities, such as prescribed burning or planting, would be decommissioned within two to five years of cutting activities.

Timing of Logging Operations – The purchaser would have the option of winter or summer logging with the following exceptions:

- No winter logging could occur in any units accessed by Roads 2707A or 2707AA when Road 332 is plowed or scheduled to be plowed. Roads 2707A and 2707AA are used as a snowmobile bypass when winter logging in other areas uses Road 332 for log haul.
- No winter logging could occur on Road 278 to allow snowmobile access for Lakeview residents unless other snowmobile or drivable road access were available.

(Also see “Features Designed to Protect Wildlife Habitat” regarding logging timing restrictions during Harlequin Duck breeding season.)

Management of Project-Necessitated Closure of Roads 332 and 278 - The timber sale contract (or contracts) would contain language requiring that maintenance on the 2707 road be completed and approved prior to any prolonged logging-related closure of Roads 332 or 278 and that at least one of these routes would remain open.

Features Designed to Keep Prescribed Burns Under Control

Prescribed burning treatments would be conducted according to established standards in FSM 5142 - Prescribed Fire Management. A site-specific burn plan would be prepared for each area to be burned. Burning would only occur when weather, fuel conditions, and available resources are at the levels specified in the prescribed burn plan.

Slash and Pile Burning – Landing slash and excavator piles would be burned in late fall after heavy rains and during cooler temperatures when the risk of escape into adjoining stands and damage to residual timber is lessened.

Fuelbreaks – If natural fuelbreaks are not present, fire lines and fuelbreaks would be constructed around the perimeters of all burn units. Where possible, firelines and fuelbreaks would be constructed on ridges, benches, and the toe of slopes, using the advantage of the terrain to best control the fire.

Use of Water and Engines – Fire hose would be installed along critical sections of fuelbreaks using water supplied from fire engines and/or pumped from nearby natural water sources (see “Features Designed to Protect Water and Fish Habitat” for “Protection of Fish When Using Streams for Prescribed Burning Control” below).

Features Designed to Protect Air Quality

Smoke Management – All prescribed burning would be conducted following the Memorandum of Understanding established between the States of Idaho and Montana to comply with State and Federal air quality guidelines. Burning would only occur when weather and air conditions are favorable for smoke dispersal. No burning would be initiated during times when air quality restrictions are in place.

Features Designed to Protect Soil, Water and Fish Habitat

Best Management Practices – All activities would be designed to protect water quality and fisheries habitat. Best Management Practices (BMPs) are the primary mechanism to enable the achievement of water quality standards. The Forest Service Handbook 2509.22 (Soil and Water Conservation Handbook) outlines BMPs that meet the intent of the water quality protection elements of the Idaho Forest Practices Act. Site-specific best management practices that have been specifically designed for these alternatives and are part of the design criteria are described more fully in Appendix A.

Estimated Effectiveness: **Moderate to high**; depending on the practice. A description of each practice and an estimate of its effectiveness are located in Appendix A. Research and monitoring have evaluated the effectiveness of BMPs (Seyedbagheri 1996, USDA Forest Service Monitoring Reports 1995 - 2004). These practices would be implemented since they are requirements tied to the timber sale contract. The Forest Service Timber Sale Administrator would frequently review the project for compliance with these and other timber sale requirements. The North Zone aquatics staff would also do periodic monitoring to assess the effectiveness of these practices.

Sediment Reduction – Spot gravelling with approximately 6 inches of gravel would be required at all stream crossings, rolling dips, and in any perennial wet areas.

Effectiveness Rating: **High**; this measure is 92 percent effective in reducing the amount of sediment delivered to streams (Foltz and Truebe 1995).

Inland Native Fish Strategy – Guidelines established by the Inland Native Fish Strategy (INFS) would be used to protect water quality and fish habitat. No commercial timber harvest would occur in Riparian Habitat Conservation Areas (RHCAs). These conservation areas include 300-foot (slope distance) protection zones for streams that have fish, 150-foot protection zones for perennial streams with no fish, and 100-foot for intermittent streams and sensitive landtypes, since Gold Creek is a priority watershed. Ephemeral draws would have a 50-foot (slope distance) protection zone if they are either directly tied to an intermittent channel, or lack large woody debris and vegetation that prevent scouring or head cutting.

Except for units likely to have burning and reforestation activities within the RHCA, standard widths defining RHCAs would be used without modification. INFS allows silviculture practices to be applied in RHCAs to acquire desired vegetation characteristics where needed to attain Riparian Management Objectives (see Appendix B, TM-1(b.)) and to design prescribed burn projects that contribute to the attainment of Riparian Management Objectives (see Appendix B, FM-4). For this project, no overstory canopy would be removed within the RHCAs and no landings or skid trails would be constructed in RHCAs. Some slashing¹ of shrubs and undesirable saplings and seedlings may occur in selected units to prepare sites for burning and reforestation activities. Planting within RHCAs would follow burning activities to promote long-lived species such as cedar, larch, and white pine. Streamside protection zones (RHCAs) were determined categorically for streams in the project area and are based on the INFS.

Eleven acres of thinning are proposed in unit 6, which is located within a landslide prone area according to GIS landtype layers. A site-specific, on the ground review of this area revealed that it does not have a high risk of mass failure (project file). Nonetheless, skyline or helicopter logging would be used to minimize ground disturbance activities, and harvesting would occur during the summer months when the soils are not saturated.

Protection Of Wetlands, Seeps, Bogs, Wallows and Springs – All known or discovered wetlands, seeps, bogs, elk wallows and springs less than one acre in size would be protected with a "no activity" buffer approximately 100 feet in diameter. There are no such areas larger than one acre.

Road Surface and Drainage Crossing Maintenance to Improve Aquatic Habitat – The main source of erosion and sediment delivery from roads is usually from the road surface. Road maintenance activities that focus on reducing sediment delivery are blading along the road prism; spot surfacing at stream crossings; installing relief culverts where ditch lengths are too long; cleaning and improving ditches; cleaning the inlet and outlets of culverts; and installing rolling dips and outlet ditches. These activities would help improve road surface drainage and decrease sediment delivery to stream channels.

Road drainage crossings that pose a hazard and risk to aquatic species and their habitat from sediment delivery have been evaluated throughout the project area. Recommendations for each crossing may include replacing, redesigning or upgrading crossings as needed. Some specific road improvements to reduce sediment risks include:

Road 2707A and 278 – Road drainage crossings along these two roads would be redesigned to avoid stream diversion potential and culvert failure. On the 2707A, proposed treatments would

¹ Slashing is the use of chainsaws to treat sub-merchantable, undesirable tree species in order to prepare a site for burning and reforestation with desired species.

maintain access for snowmobiles and a groomer. On both roads, increasing culvert flow capacities to withstand a 100 yr. flood event and constructing a rolling dip would reduce sediment risks.

Road maintenance activities that repair or remove drainage structures in perennial streams would take place after July 15 and prior to September 15. This is to reduce risk of effects from sediment during spring runoff and to avoid effects to westslope cutthroat trout redds and staging or spawning bull trout.

Road Decommissioning to Improve Aquatic and Wildlife Habitat – All roads identified for decommissioning or storage would be decommissioned with appropriate techniques. These may include full or partial recontouring; removing all culverts; stabilizing fill slopes and restoring stream channel crossings back to natural grade. Seeding, fertilizing, and placement of woody debris would follow to establish vegetation and prevent noxious weed spread.

Protection of Fish When Using Streams For Prescribed Burning Control – To avoid adverse effects to fish and redds while using natural water sources, water removal may not exceed 90 gallons per minute and pumping sites would be located away from spawning gravels. The intake hose would be screened to prevent accidental intake of small fish. An emergency spill clean up kit would be on site in the unlikely event of a fuel spill outside the containment system. This is consistent with INFS direction (USDA Forest Service 1995; Appendix A, RA-5).

Features Designed to Protect Wildlife Habitat

Wildlife Tree Retention – Design features for the project were developed to ensure the retention and selection of snags at a level and distribution that have been shown to support viable populations of species that use them.

Snags and live tree replacements would be retained where opportunities exist in treatment units at levels recommended by scientific literature based on recent studies (Bull et al. 1997). In high-risk stands proposed for regeneration cutting, large snag habitat is generally lacking due to past large-scale lethal fires and the preponderance of short-lived tree species and root disease. Consequently, snag retention objectives would not be met in these areas.

Snag retention objectives are consistent with recent published data that suggests that populations of cavity nesters were viable in stands of ponderosa pine and mixed conifer forests that contained about four snags per acre (Bull et al. 1997).

To compensate for the lack of snags in heavy root disease areas, the following minimum amounts of snags and live tree replacements are to be retained within applicable cutting areas:

- Dry forest habitats: 4 snags and 8 live tree replacements/acre from the largest trees
- Moist forest habitats: 6 snags and 12 live tree replacements/acre from the largest trees

Selection of snags and live tree replacements would emphasize practices that assure the highest probability for long-term retention (Bull et al. 1997). The high hazard snags and snags in the advanced stages of decay would not be used to meet retention objectives (Intermountain Forest and Industry Association et al. 1995). Retention practices would focus on the largest diameter size class represented in stand giving preference to ponderosa pine, western larch, Douglas-fir and western red cedar trees, especially veteran or relic ponderosa pine and western larch trees. Trees killed by root disease would be avoided, where possible, to meet retention objectives because of their rapid deteriorate/fall-down rate.

While retention objectives are accounted for on a treatment level scale, some snags would be represented on every 10-20 acres of treatment, in clusters or clumps where feasible, to promote good distribution of snags. Large diameter snags (greater than 15 inches diameter) that are felled for safety reasons would remain on site to provide for large woody debris recruitment and long-term site productivity.

Slash would be pulled back from veteran or relic ponderosa pine and western larch live trees and snags to protect them from the adverse effects of prescribed burning. Grapple piling would be considered to treat fuels on moderate slopes where residual snags would be at risk from broadcast burning.

Retention of Hardwood Trees – To maintain forest species diversity and wildlife habitat, aspen and birch trees would not be harvested for pulp. If for safety reasons these species need to be cut they would remain on site for coarse, woody debris and long-term site productivity. Selected merchantable conifers in and around aspen patches would be removed to reduce competition for water, nutrients and sunlight.

Dry Forest Ecosystems – Because there are fewer ponderosa pine trees in the northern Rocky Mountains than were here historically, it is necessary to retain large Douglas-fir trees in addition to the large ponderosa pine trees to achieve suitable habitat conditions for species associated with the drier habitats. Due to the high incidence of insect and disease, some stands proposed for treatment are not able to sustain sufficient forest structure necessary for flammulated owls and other wildlife associated with dry forest ecosystems. However, some proposed stands retain enough structure to promote or achieve suitable habitat conditions. For these stands, cutting treatments would be designed to maintain a mature ponderosa pine/Douglas-fir community by:

- Fashioning a landscape to accommodate relatively frequent fire regimes
- Promoting the persistence of large snag habitat
- Retaining an overstory canopy closure of 35-65 percent
- Achieving a relatively open landscape of ponderosa pine/Douglas-fir that is structurally complex (nonuniform spacing of trees, moderate within stand variability) with small patches of denser vegetation (> ¼-acre)

Vegetation Screen – Vegetation buffers would be left along open roads and next to treatment areas where there is a realistic chance of protecting buffers from logging and fuel treatments. This measure is designed to provide security screening for wildlife and minimize unscheduled access. Buffers would transition from a no-cut zone into the treatment prescription.

Harlequin Duck Habitat Protection – Along West Gold Creek (from the confluence with Gold Creek, upstream, through Section 17) manage riparian habitat according to INFS guidelines (see Features Designed to Protect Water and Fish Habitat above). Ground-based, mechanized activities would be avoided within at least 300 feet of the stream during harlequin duck breeding season (April 15 – September 5) in or near proposed units 06 and 39. Helicopter logging activities would also be withdrawn from this area during the same season. Activity restrictions could be removed if on-site breeding surveys determine that habitat is not occupied.

Threatened, Endangered, and Sensitive Wildlife Species Management – If any threatened, endangered, or sensitive species were located during project layout or implementation, management activities would be altered, if necessary, so that proper protection measures are taken. Timber sale contract clause B(T)6.25, Protection Of Threatened, Endangered And Sensitive Species, would be included in any timber sale contract.

Protection of Elk Wallows - See “Protection of Wetlands, Seeps, Bogs, Wallows and Springs” above under “Features Designed to Protect Water and Fish Habitat.”

Features Designed to Protect Soil and Site Productivity

The following practices are designed to minimize the detrimental impacts of soil compaction, displacement, severe burning, and nutrient and organic matter depletion on long-term soil productivity. The use of these practices will insure that the soil quality standards listed in the Forest Plan and Regional Soil Quality Standards would be met.

Protection During Tractor Yarding – The following tractor skid trail spacing would be used:

- All new skid trails would be designated or agreed upon by the sale administrator.
- Where terrain is conducive, trails would be spaced at least 100 feet or more apart, except where converging.
- Skid trail spacing closer than listed above may be planned when winter logging could occur on at least two feet of packed snow or frozen ground, or where adequate slash matting exists.

Protection During Logging Activities – If an area is winter logged one or more of the following requirements apply:

- Require a 24-inch snow layer or 18 inches of settled snow
- Require frozen ground to a depth of 4 inches
- Restrict equipment operation to skid trails or where adequate slash matting exists

Skyline Yarding – At a minimum, the leading end of logs would be suspended during yarding.

Protection During Prescribed Burning Activities – Prescribed underburning and pile burning would take place only when the surface inch of mineral soil has a soil moisture content of 25 percent by weight or 100 percent or greater duff moisture.

Nutrient Protection on machine or hand piled areas – Fine residue (foliage and branches) would be allowed to overwinter on site to allow potassium to leach out of these materials.

Protection during grapple piling activities – Grapple piling machinery would travel on a slash mat on slopes under 35 percent during piling activities.

Restoration of Landings – All non-dedicated helicopter landings would be restored by decompacting the site using a winged subsoiler, seeding and planting the site to reestablish vegetation and leaving coarse woody debris for nutrient retention.

Nutrient Protection – The latest soil nutrient management recommendations from the Intermountain Forest and Tree Nutrient Cooperative (IFTNC) and Rocky Mountain Research Station would be applied to each activity area where organic material is removed as appropriate:

- Conventional removal (lop and scatter) rather than whole-tree removal would be practiced. The “lop and scatter” technique would be used during intermediate (thinning) as well as final harvest (regeneration) operations.
- Slash would remain on site over-winter so that mobile nutrients such as potassium can leach from fine materials back to the soil.
- Broadcast burn or underburns would be “light” in nature and would foster release of potassium and other nutrients.

- Tree species suitable to the site would be planted.

Retention of Coarse Woody Debris – Management of coarse woody debris and organic matter in regeneration units would follow the USFS Region 1 guidelines described in table 3 below. In units where existing coarse material is not sufficient, project activities would provide enough dispersed dead and downed coarse material to meet the guidelines.

Table 3. Coarse woody debris requirements

Stands	Potential Vegetation Code	Habitat Type	Coarse Woody Debris ¹
Douglas-fir/ninebark	260	PSME/PHMA	5-10 tons/acre
Grand fir/bear grass	510	ABGR/XETE	7-14 tons/acre
Western hemlock/queencup beadlily	570	TSHE/CLUN	17-33 tons/acre

¹ The minimum amounts listed should be retained after intermediate harvest, whereas the higher levels are recommended after final (regeneration) harvest and slash treatments.

Features Designed to Protect Heritage Resources

During timber sale layout, an archeologist would identify and mark as much of the historic trails located within proposed units 20, 24, 28,40, 41 and 44 as possible to determine if protection measures are necessary. If the trail can be identified, blazed trees would be protected and the tread location cleared after logging activities.

In the event that heritage resources are encountered during program activities, the Forest has the authority to modify or stop timber sale activities. The standard heritage resources protection provision B(T)6.24 (Protection Of Cultural Resources), would be included in the timber sale contract. The provision specifically requires the contractor to notify the Forest of such discoveries. Mitigation of impacts for timber sales can include, but are not limited to:

- Establishment of buffer zones,
- Directional falling,
- Alteration of cutting unit boundaries,
- Changes in road locations,
- Designation of skid trails away from historic properties,
- Limiting the cutting methods in certain areas,
- Seasonal limitations, and
- Limiting slash disposal and tree planting activities.

Features Designed to Protect Threatened, Endangered, Sensitive and Rare Plants

All documented occurrences of rare moonworts would be buffered from project activities. The buffers would be established by a qualified botanist. Should one of the action alternatives be selected for implementation, any change to unit boundaries or addition of new treatment areas that

may occur during layout would be reviewed, and rare plant surveys would be conducted as necessary prior to project implementation. Newly documented occurrences would be evaluated, with specific protection measures implemented to protect population viability. Such measures could include the following:

- Dropping units from cutting activity
- Modifying unit boundaries to provide adequate buffers around documented occurrences, as determined by a qualified botanist and based on topography, extent of contiguous suitable habitat for documented occurrences and the type of treatment proposed.
- Modifying cutting methods, fuels treatment or logging systems to protect rare plants and their habitat
- Implementing, if necessary, Timber Sale Contract provisions B(T)6.25 (Protection of Endangered Species), and C(T)9.51 (Settlement for Endangered or Sensitive Species Termination).

Features Designed to Prevent the Spread of Noxious Weeds

Noxious weed treatment would be conducted according to guidelines and priorities established in the Sandpoint Noxious Weed Control Project FEIS (USDA Forest Service 1998c). Methods of control may include biological, chemical, mechanical and cultural. Follow-up treatments and monitoring would be conducted as needed.

Gravel or borrow pits to be used during road construction or reconstruction would be free of new weed invader species (as defined by the IPNF weed specialist). A list of weed species considered potential new invaders is included in the project file.

Any priority weed species (as defined by the IPNF weed specialist) identified during road maintenance would be reported to the district weed specialist. A list of priority weed species is included in the project file.

Weed treatment of all haul routes, service landings, and helicopter landings on National Forest lands would occur prior to ground-disturbing activities where feasible. If the timing of ground disturbing activities would not allow weed treatment to occur when it would be most effective, it would occur in the next treatment season following the disturbance.

All timber sale contracts would require cleaning of off-road equipment prior to entry onto National Forest lands. If operations occur in areas infested with new invaders (as defined by the IPNF Weed Specialist), all equipment would be cleaned prior to leaving the site.

All newly constructed roads, skid trails, landings or other areas of disturbance (including maintenance on existing roads) would be seeded with a weed-free native and desired non-native seed mix and fertilized as necessary. Areas that are underburned would be evaluated following the burn and seeded and fertilized as necessary.

All straw or hay used for mulching or watershed restoration activities would be certified weed-free.

Road segments identified for weed treatment and proposed for decommissioning would be treated prior to decommissioning.

Features Designed to Protect Scenery and Visual Quality

As needed to meet Visual Quality Objectives, the following specific design criteria would be used:

Tree cutting activities would be designed to rehabilitate views that include the existing clearcuts and power line corridor by shaping units to imitate natural openings and landform configurations, including islands of untouched vegetation, openings, clumps of trees and open stands of trees with irregular spacing. Where treatment areas lie next to past clearcuts or the powerline corridor, straight lines would be modified by leaving trees in an open mosaic pattern. This technique borrows color and texture from the existing landscape, including the old cutting units. In thinning units, the spacing of leave trees would vary and some clumps of denser canopy would be retained to create a natural appearance. Roads and landings would be located and constructed to minimize cuts and fills. Hardwoods would be maintained for diversity of color and texture.

In the background view areas, openings would be shaped to a size and form that appear as natural. Hardwoods would be maintained for diversity of color. Vegetation would be blended from treated to untreated areas.

Attachment D – Maps Related to the Selected Alternative
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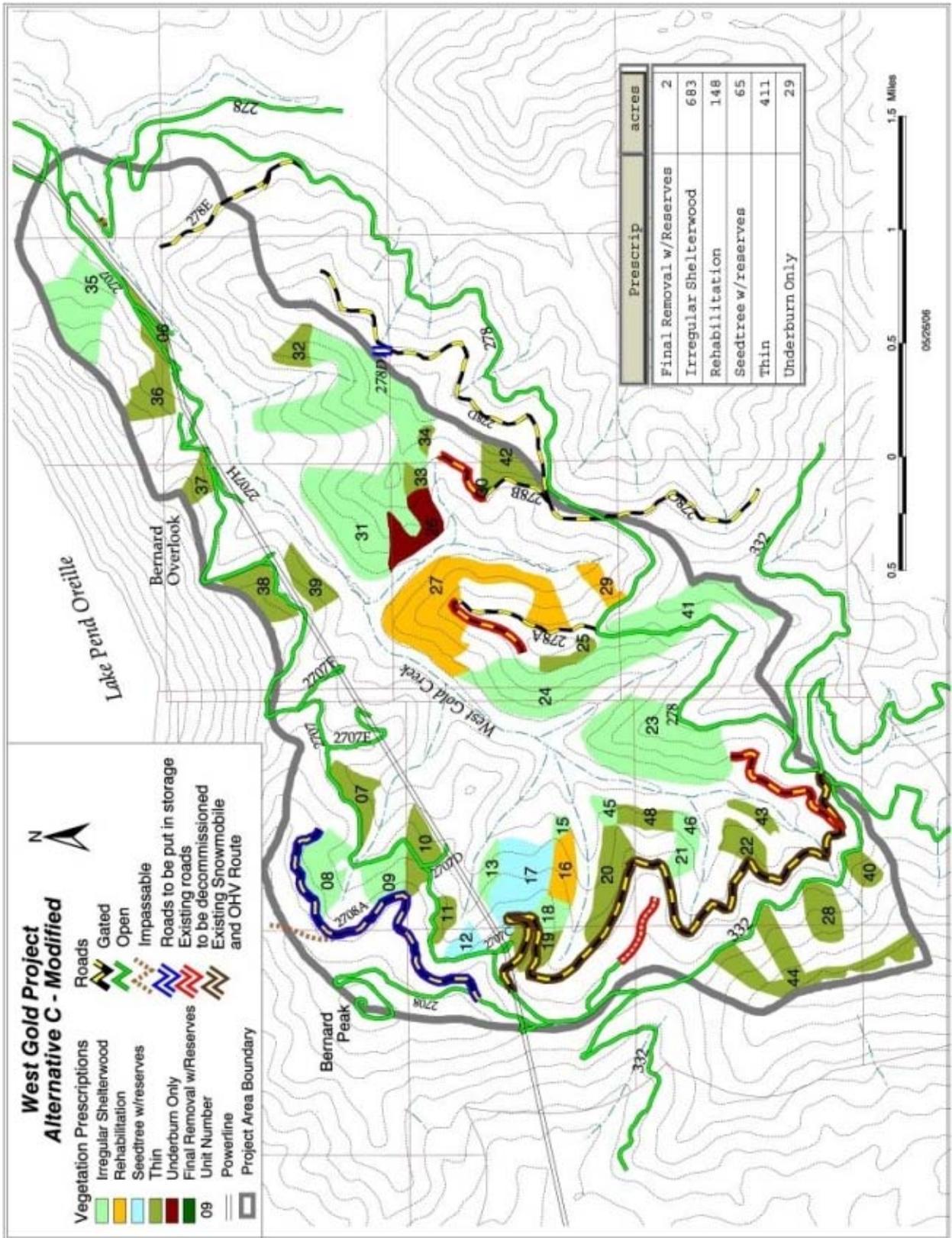


Figure B. Map of treatments for Alternative C Modified

