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Coeur d'Alene River Ranger District

Placer Resource Area Environmental Assessment

Under Authority of the Healthy Forest Restoration Act

Placer Resource Area Environmental Assessment

Table of Contents

Part 1. Introduction	Page EA-1
Part 2. Need for the Proposal	Page EA-2
Part 3. Alternatives	
3.A. Overview of Alternatives.....	Page EA-7
3.B. No-Action Alternative.....	Page EA-7
3.C. Proposed Action Alternative	Page EA-8
3.C.(1). Overview of Activities Under the Proposed Action.....	Page EA-8
3.C.(2). Description of Activities Under the Proposed Action.....	Page EA-9
➤ Road 456 Fuel Break.....	Page EA-10
➤ Prescribed Burning in Brush Fields.....	Page EA-10
➤ Daylight Thinning in Western Larch.....	Page EA-11
➤ Regeneration in Lodgepole Pine.....	Page EA-12
➤ Regeneration and Site Rehabilitation	Page EA-13
3.C.(3). Implementation Features of the Proposed Action.....	Page EA-14
3.C.(4). Mitigation Measures of the Proposed Action	Page EA-16
3.C.(5). Implementation & Effects Monitoring	Page EA-16
3.D. Alternatives Considered But Eliminated.....	Page EA-18
Part 4. Environmental Impacts of Alternatives	
4.A. Introduction	Page EA-21
4.B. Impacts to Fire/Fuels	Page EA-21
4.C. Impacts to Forest Vegetation.....	Page EA-22
4.D. Impacts to TES Plants	Page EA-24
4.E. Impacts to Noxious Weeds	Page EA-25
4.F. Impacts to Aquatics.....	Page EA-26
4.G. Impacts to Soils.....	Page EA-28
4.H. Impacts to Wildlife.....	Page EA-28
4. I. Impacts to Recreation.....	Page EA-34
4.J. Impacts to Scenery	Page EA-34
Part 5. Administrative Review Process	Page EA-35
<u>APPENDICES</u>	
Appendix A	HFRA Authorization
Appendix B	Past, Ongoing & Reasonably Foreseeable Activities
Appendix C	Public Collaboration and Comments

LIST OF TABLES

Table 1. Existing and desired conditions and actions needed to achieve desired conditions..... Page EA-5
Table 2. Summary of proposed activities related to fuels reduction and stand improvement..... Page EA-8
Table 3. Brush field burning units proposed in the Placer Resource Area..... Page EA-10
Table 4. Commercial daylight thinning units proposed in the Placer Resource Area Page EA-11
Table 5. Regeneration (shelterwood) units proposed in the Placer Resource Area Page EA-12
Table 6. Regeneration and site rehabilitation units proposed in the Placer Resource Area..... Page EA-13
Table 7. Long-term monitoring of ecosystem core data..... Page EA-17
Table 8. Potential habitat affected by proposed activities in the Placer Resource Area..... Page EA-25
Table 9. Comparison of changes in peak flow and water yield in the Placer Resource Area.... Page EA-27

LIST OF FIGURES

Figure 1. Vicinity map of the Placer Resource Area..... Page EA-1
Figure 2. Portions of the Placer Creek Watershed burned in the 1910 and 1928 fires..... Page EA-2
Figure 3. Mine portal in West Fork Placer Creek Page EA-2
Figure 4. Wallace, Idaho, after the 1910 fire Page EA-2
Figure 5. Fire Regime Classes in the Placer Resource Area..... Page EA-4
Figure 6. Brush field in the Upper Placer Watershed Page EA-10
Figure 7. Western larch stands in the Upper Placer Creek Watershed Page EA-11
Figure 8. Mortality caused by mountain pine beetles near the Placer Resource Area Page EA-12
Figure 9. Proposed rehabilitation treatment near Red Oak Gulch Page EA-13

PLACER RESOURCE AREA ENVIRONMENTAL ASSESSMENT

PART 1. INTRODUCTION

Fuel reduction and stand improvement activities have been proposed on public lands in a 9,955-acre area of the Coeur d'Alene River Ranger District, identified for the purposes of this analysis as the Placer Resource Area. An estimated 68 percent of lands (approximately 6,770 acres) within the project boundary are managed by the Coeur d'Alene River Ranger District of the Idaho Panhandle National Forests (IPNF). The Bureau of Land Management (BLM) manages 18 percent of lands (approximately 1,790 acres) within the boundary, and the remaining 14 percent (approximately 1,395 acres) are privately owned lands. Under the IPNF Forest Plan, 69 percent of the National Forest System land is managed for timber production and is to be managed for the long-term growth and production of commercially valuable wood products; 5 percent is to be managed for big-game winter range as well as to produce wood products; 24 percent is not managed for timber production or is non-forest; and 2 percent is along streams and is to be managed for riparian-dependent resources (fish, water quality, vegetation and wildlife communities) while producing other resource outputs at levels compatible with objectives for dependent resources (USDA 1987, PF Doc. CR-001).

The Placer Resource Area includes all or portions of T48N, R4E, sections 27, 32, 33 and 34; T47N, R4E, sections 1–6, and T47N, R5E, sections 7–9 and 16–19, Boise Meridian. The Placer Resource Area is located south of Interstate 90 and the community of Wallace, Idaho (Figure 1). The BLM boundary is less than 250 yards from the community of Wallace. (National Forest lands are shown in green; BLM lands are in orange.) The Placer Resource Area also includes 2,763 acres of the 81,000-acre Big Creek Roadless Area #1143 (depicted by the hatched area in Figure 1).

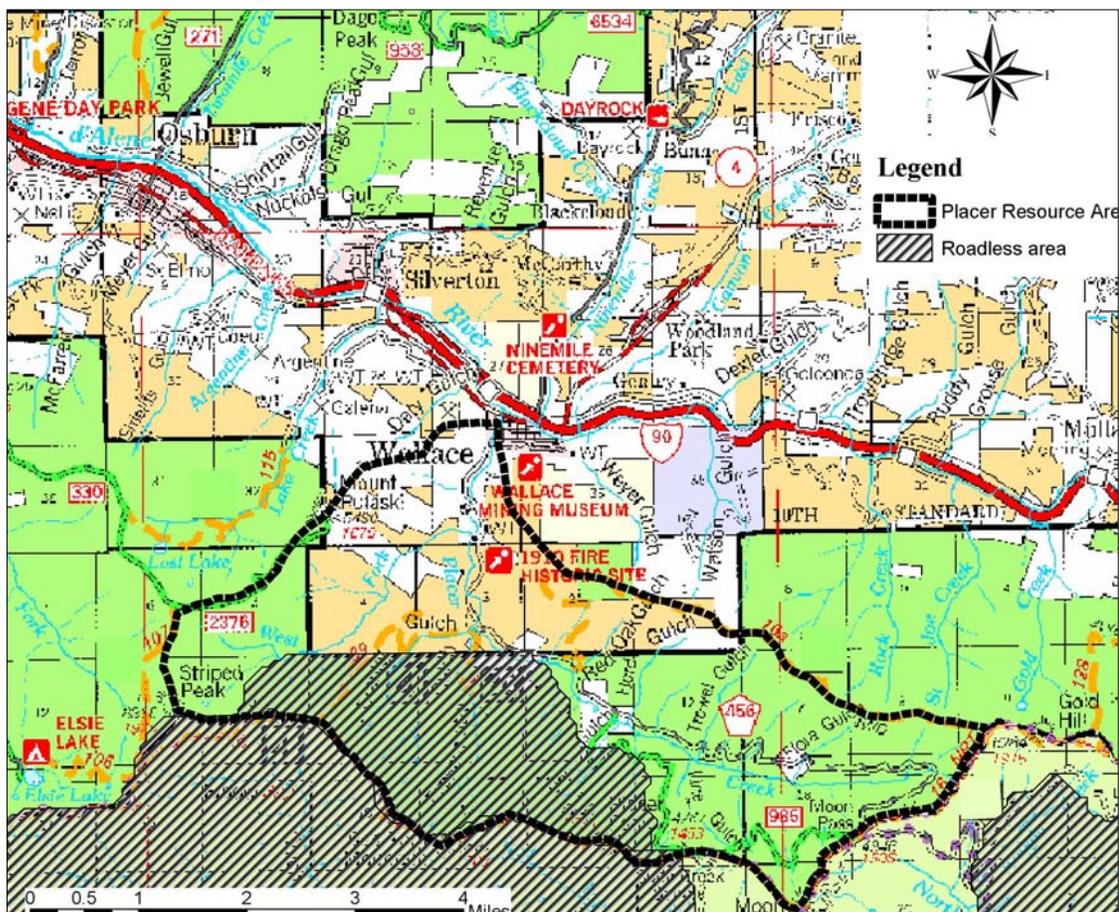


Figure 1. Vicinity Map of the Placer Resource Area. The dashed black line represents the analysis area boundary; the area hatched with black represents an overlapping adjacent inventoried roadless area.

PART 2. NEED FOR THE PROPOSAL

Although there are few people left who lived through the event, area residents are very familiar with the history of the Placer Creek watershed, situated in Shoshone County's Silver Valley. The 1910 fire burned over 2.5 million acres of northern Idaho and western Montana in a period of only 36 hours when a windstorm fanned the flames of several fires burning during that drought year. The fire that burned virtually the entire Placer Creek watershed (Figure 2) started near the St. Joe River, several miles south of the Silver Valley. The West Fork of Placer Creek is the site of Ranger Edward Pulaski's famous run to an abandoned mine where he saved the lives of nearly 40 men by holding them at gunpoint in the mine until the firestorm passed (Figure 3). The town of Wallace, which sits at the mouth of Placer Creek, was evacuated. By the time the fire passed, one-third of the town had burned (Figure 4).

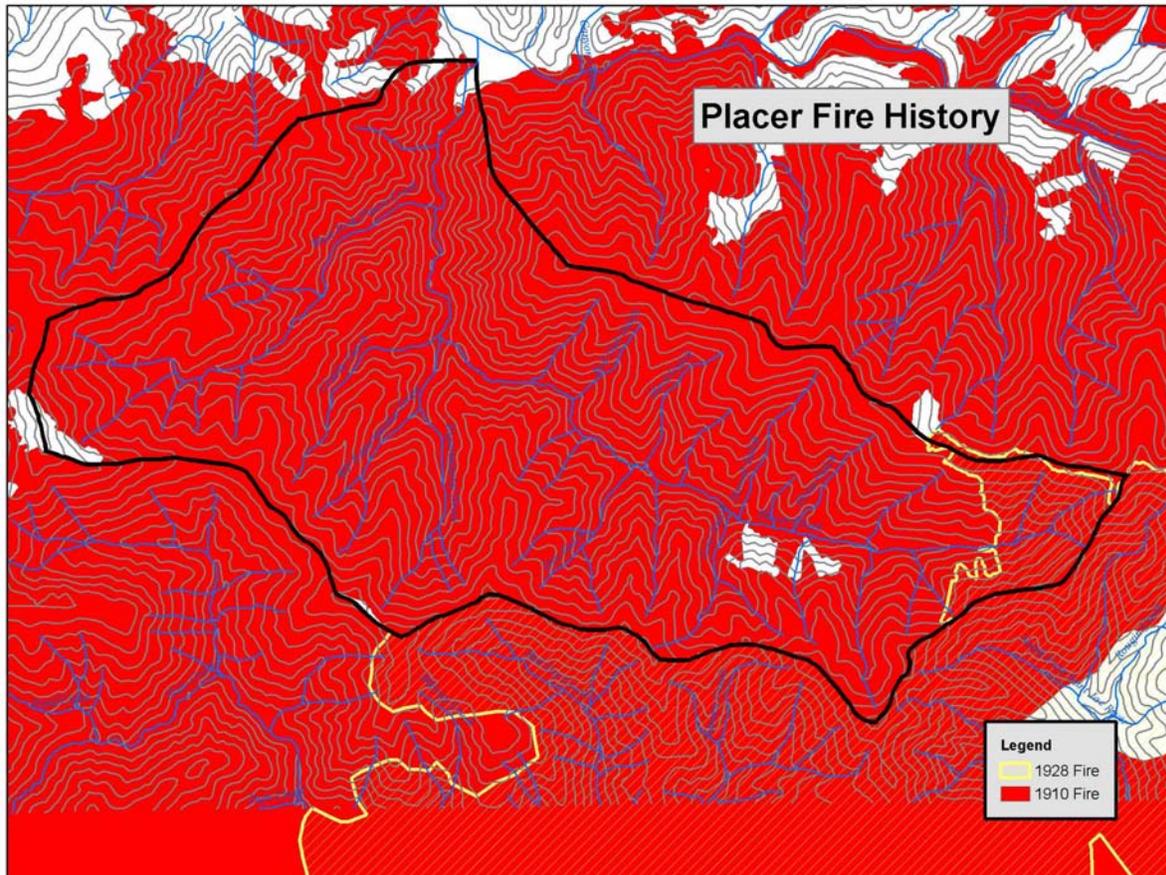


Figure 2. Map displaying the portions of the Placer Creek Watershed burned during the 1910 and 1928 Map



Figure 3. The mine portal in West Fork Placer Creek where Pulaski led his crew during the devastating fire of 1910.



Figure 4. Wallace, Idaho, after the 1910 fire.

In 1928, another fire began in the St. Joe drainage and burned in a northeasterly direction, scorching 450 acres at the southeastern edge (5 percent of the Placer Resource Area) that had already burned during the 1910 fires (depicted by a yellow line in Figure 2; the yellow line is at times obscured by the black project area boundary line). These two large fires had at least three similarities: they originated in the St. Joe drainage, were wind-driven in a northeasterly direction, and occurred during drought years. This is important because all of these conditions could occur simultaneously in the area today. The situation is made more critical by the current level of hazardous fuels, the importance of the area as a community water supply, and the number of homes in and near communities located along the eastern side of the Interstate 90 corridor (Specialist's Report on Fire/Fuels, page FF-2).

The community of Wallace is one of several communities in the Silver Valley that have been identified as being at high risk from wildfire (USDA Forest Service/USDI BLM, 2001, "Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire," Federal Register pages 43384, 434004; PF Doc. CR-027). Based on the lay of the land, wind patterns, and past history, a large wind-driven fire (even one much smaller than the 1910 fire) could seriously threaten the communities of Wallace, Osburn, and Mullan, as well as many other homes and businesses throughout the area.

Shoshone County has developed a wildfire mitigation plan that recognizes the threat that wildfires pose to the county, and recommended management that would decrease this risk (Shoshone County Wildland Urban Interface Fire Mitigation Plan, referred to as the County Fire Mitigation Plan; PF Doc. CR-020). One of their goals is to reduce the rate of fire spread and acres of land burned by forest fires through the implementation of targeted fuel mitigation treatments where the landscape has the potential to sustain fires that threaten communities in the rural urban interface. "While our recommendations for specific communities and neighborhoods will reduce the risk of casualty loss, it must be combined with aggressive, active forest management in the forests that surround these communities to have a substantial impact. Specifically, historic data indicates that fires in this region have spread in a northeasterly direction from their point of origin. Therefore, the forests southwest of each community for a distance of 5 to 10 miles should be targeted initially to reduce the potential of fire spreading with full force into populated places," (Shoshone County Fire Mitigation Plan, p. 85; PF Doc. CR-020).

The Plan identifies Placer Creek as a priority treatment area for Shoshone County, describing the south-facing areas of Placer Creek as being at moderate to high risk for possible wildfire ignition and spread because of the forest fuels, southerly aspect, potential for lightning strikes, and potential for ignition from human causes.

Approximately 80 percent of the Placer Resource Area is in Fire Regime Condition Class 2 (which represents a moderate risk of losing key ecosystem components such as native species, large trees and soil), with the remaining 20 percent in Condition Class 3 (at high risk of losing ecosystem components). None of the area is identified as Fire Regime Condition Class 1 (which represents a low risk of losing key ecosystem components). See Figure 5.

**SHOSHONE COUNTY FIRE
MITIGATION PLAN** was

developed with funding provided by the USDA Forest Service and the Federal Emergency Management Agency (FEMA).

Northwest Management, Inc. (www.consulting-foresters.com) is a professional forestry-consulting firm located in Moscow, Idaho, that was selected by the county-based committee to evaluate the wildland fire situation in the county.

The consultants recommended projects intended to reduce the rate of spread and acres of land burned by forest fires through the implementation of targeted fuel mitigation treatments.

Input from local citizens, fire district personnel, wildfire specialists, and others was incorporated into these recommendations. Specialists from the Forest Service, BLM, Idaho Department of Lands and Shoshone Fire Districts 1 & 2 contributed substantial time, information and input to the analysis.

For more information, view a copy of the Shoshone County Fire Mitigation Plan on the Idaho Panhandle National Forests' website at:

www.fs.fed.us/ipnf/eco/fire.html

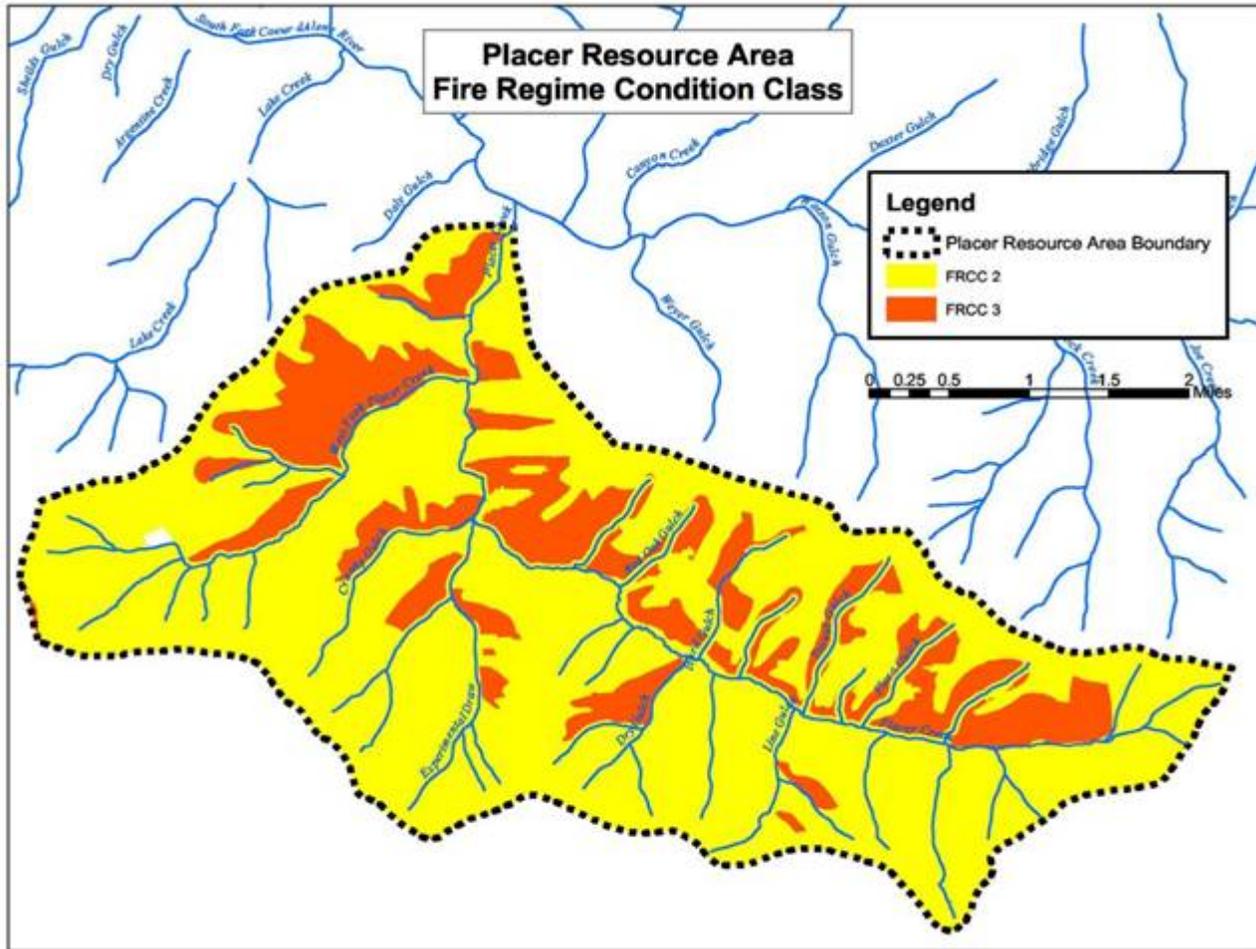


Figure 5. Map displaying Fire Regime Condition Classes in the Placer Resource Area.

As a result of the 1910 fire, the majority of trees in the Placer Creek watershed are of the species, age and diameter range most susceptible to insects and diseases (Specialist's Report on Forest Vegetation, p. VEG-9). Long-lived seral species (white pine, western larch and ponderosa pine) have declined as a result of changes in the role of fire, white pine blister rust, and timber harvesting. Combined, these species represent only 14 percent of the forest cover sites (about 1,200 acres) in the Placer Resource Area. The current forest cover types contain much more Douglas-fir than before the 1910 fire, with approximately 40 percent of the Placer Resource Area forest cover types. Douglas-fir is the most susceptible species to root diseases in the Placer Creek watershed (Specialist's Report on Forest Vegetation, p. VEG-7).

Lodgepole pine occupies about 1,300 acres (15 percent) of the Placer Resource Area. All of the lodgepole pine is 80 to 100 years old and averages about 8 inches diameter at breast height. Based on current conditions in the lodgepole pine, there is a "high to very high" mountain pine beetle hazard rating for these stands in the Placer Creek watershed. High levels of mortality in lodgepole pine stands would increase fuels as well as the likelihood of high intensity of high severity wildfire in the urban interface and immediately adjacent areas.

Large fires and insect and disease mortality have dramatically shaped the structure stages found in the Placer Resource Area today (Specialist's Report on Forest Vegetation, p. VEG-15). Essentially, the 1910 fire created one large patch of new regeneration. The Placer Resource Area has a higher percentage of small to medium-sized timber (86 percent) in comparison to the desired condition (between 20 and 40 percent).

As currently unmanaged stands age and exhibit less resiliency to insects, disease and fire, the opportunities to achieve structural characteristics without starting over with regeneration would be increasingly limited.

Activities are needed to create vegetative interruptions that would reduce the potential for high-intensity fires, reduce fire risks and improve forest composition and structure. No single management prescription will achieve multi-resource objectives across all stands within a landscape. Silvicultural systems using density and species management, along with the judicious use of prescribed fire, are key to managing western forests.

A synopsis of the existing and desired conditions described above and the actions needed to achieve those desired conditions is provided in Table 1. These conditions are described further in Part 4 (Environmental Impacts of Alternatives) and in the Specialists' Reports on Fire/Fuels and Forest Vegetation (PF Doc. SR-01 and SR-02).

Table 1. Existing and Desired Conditions and the Actions Needed to Achieve Desired Conditions in the Placer Resource Area.

FIRE / FUELS
<p><u>Existing Fire/Fuel Conditions:</u></p> <p>Due to suppression of fire from the area for more than 70 years, there are increasingly dense surface, ladder and canopy fuels in the Placer Resource Area. In addition, brush fields have become decadent with tall old brush. These conditions have led to the potential for larger fires, and for more intense crown fires that are very resistant to fire control efforts and which threaten life, property and key ecosystem components. Approximately 80 percent of the Placer Resource Area is in Fire Regime Condition Class 2, with the remaining 20 percent in Class 3.</p>
<p><u>Desired Fire/Fuel Conditions:</u></p> <p>The amount of forest fuels in the Placer Resource Area would be reduced, with brush fields acting as fuel breaks in the event of an uncontrolled wildfire. Potential fire intensity and severity would be less than currently exists. There would be a reduced risk to life, property and natural resources; and increased safety for fire suppression crews. These desired conditions are consistent with Forest Plan Goal #23 and Objective S-fire management (Forest Plan, pages II-2, II-8; PF Doc. CR-002). Conditions in the Placer Resource Area would be trending toward Fire Regime Condition Class 1.</p>
<p><u>Actions Needed to Achieve Desired Fire/Fuel Conditions:</u></p> <p>A combination of tree removal and fuels reduction treatments is needed to reduce forest fuels. Thinning is needed to reduce ladder fuels, making it harder for a fire to climb into the crowns of trees. Reducing horizontal fuel continuity (brush, low vegetation, and the woody fuel layer) would disrupt the progress of surface fires, limit buildup of fire intensity, and reduce the probability of a spot fire ignition. Thinning would also reduce crown fuels and the crown fire potential of the stand. Prescribed burning is needed in brush fields to reduce fuels and to facilitate their use as fuel breaks. A fuel break is needed along Road 456 to further reduce the risk to homes and communities as recommended by the Shoshone County Fire Mitigation Plan (page 80; PF Doc. CR-020).</p>
<p>◆ Purpose and Need for Action #1 of 3: To reduce dense fuels so that there is less risk to life, property and natural resources.</p>

Table 1. Existing and Desired Conditions and the Actions Needed to Achieve Desired Conditions in the Placer Resource Area, continued.

SPECIES COMPOSITION
<p><u>Existing Species Composition:</u></p> <p>There are fewer large, long-lived, fire-resilient western larch and white pine in the Placer Resource Area than there were historically. These species have been replaced by Douglas-fir and grand fir, which are more susceptible to insects, disease and fire. Many stands of lodgepole pine in the area are of an age where they are more likely to succumb to wind, insects, disease, and fire. As a result of these trends, there is risk of increased fire severity and a lower level of resilience in the ecosystem.</p>
<p><u>Desired Species Composition:</u></p> <p>Western larch and white pine would account for at least 35% of species composition to provide a level of resilience to the ecosystem, helping to develop sustainable forest conditions. Long-lived seral tree species are better adapted and more resilient in the mixed and low severity fire regimes and other disturbances of northern Idaho. These desired conditions are consistent with Forest Plan Goal #24, Objective L-timber, and Objective T-forest protection (Forest Plan, pages II-2, II-8 and II-10; PF Doc. CR-002).</p>
<p><u>Actions Needed to Achieve Desired Species Composition:</u></p> <p>Stands need to be tended or reforested to increase the amount of long-lived, fire-resilient western larch and fire-dependent white pine, decreasing the amount of Douglas-fir and grand fir that are more susceptible to insects and diseases. Timely regeneration is needed in lodgepole pine stands that have a high risk of losses to insects and diseases to reduce risk of losses (this also helps in the trend toward desired structural stages). Thinning and prescribed burning are needed in stands of western larch that are approaching the 80 to 100-year age class to maintain the larch over the long term, resulting in healthier stands with less fire risk. Rehabilitation and regeneration activities are needed in stands with high tree losses to insects and disease.</p>
<p>◆ Purpose and Need for Action #2 of 3: To increase the proportion of fire-resilient species so stands are healthier with less fire risk.</p>
STRUCTURAL STAGES
<p><u>Existing Structural Stages:</u></p> <p>Landscapes in the area are generally in the middle-aged stage, largely as a result of the 1910 fire. There are few acres of old and mature or large trees that provide habitat and large wood. There are also few areas of young trees that supply valuable wildlife habitat.</p>
<p><u>Desired Structural Stages:</u></p> <p>Approximately 10 to 30% of stands in the Placer Resource Area would be in the young stages, 20 to 40% in the middle-aged stages, and 40 to 55% in the mature and old stages. A mosaic of successional stages would disrupt the spread of wildfire or insects and disease. Patch sizes would range from hundreds to thousands of acres, with a minimum of 300 to 700-acre patches with connectivity where possible. These desired conditions are consistent with Forest Plan Goal #16 and Forest Protection Objective T (Forest Plan, pages II-2 and II-10; PF Doc. CR-002).</p>
<p><u>Actions Needed to Achieve Desired Structural Stages:</u></p> <p>A combination of treatment activities is needed to trend toward a mosaic of different forest successional stages and patch sizes that would help disrupt the spread of a wildfire. Activities are needed that would increase the longevity of middle-aged stands to ensure stands of potential mature and old, long-lived seral species are maintained</p>
<p>◆ Purpose and Need for Action #3 of 3: To create a mosaic of healthy stands that vary in age, height and patch size to help disrupt the spread of a wildfire.</p>

PART 3. ALTERNATIVES

3.A. Overview of the Alternatives

Two alternatives were considered in detail – the No-Action Alternative and the Proposed Action Alternative. Although agencies are not expected to develop a full no-action alternative (USDA Forest Service, 2004, p. 10), consideration of the No-Action Alternative was suggested during project scoping (see The Lands Council letter dated December 1, 2003; PF Doc. PI-08, p. 1). The No-Action Alternative analyzed for this project represents the effects of not implementing the proposed activities, as well as the effects of past, ongoing and reasonably foreseeable activities. The Proposed Action Alternative represents the effects of implementing the proposed activities, as well as the effects of ongoing and reasonably foreseeable activities.

During project scoping and the collaborative process, two alternatives were suggested by the public. However, as discussed in Section 3.D, neither of these alternatives would meet the objectives identified as the purpose and need for this project in accordance with regulations put into effect by the Council on Environmental Quality (CEQ); therefore they were not considered in further detail. Based on this information, the range of alternatives is consistent with the direction provided by HFRA (Sec. 104[c][1]).

3.B. Description of the No-Action Alternative

The No-Action Alternative represents the current and expected future condition given the past, ongoing and reasonably foreseeable activities (described in Appendix B and the Specialists' Reports). No new activities are proposed on federal lands in the Placer Resource Area under the No-Action Alternative.

Purpose and Need #1 of 3: To reduce dense fuels so that there is less risk to life, property, and natural resources.

The No-Action Alternative would not reduce fuels, because no fuel reduction activities would occur. The No-Action Alternative would allow the continuation of surface fuel accumulation, as well as the changes in fire behavior associated with a change in forest structure and species. Successful fire suppression without prescribed fire causes an increase in the amount and continuity of the living and dead material that fuels fires. The lack of activities would allow the landscape further deteriorate into Fire Regime Condition Classes 2 and 3. In addition, fire exclusion would heighten fire hazards to forest homes.

Purpose and Need #2 of 3: To increase the proportion of fire-resilient species so stands are healthier with less fire risk.

The No-Action Alternative would not respond to this need, because no activities would occur to increase the proportion of fire-resilient species such as white pine and western larch. The continued loss of fire-resistant species would continue to lead to forests that could experience more pronounced fire effects and an increased amount of mortality associated with wildfire.

Purpose and Need #3 of 3: To create a mosaic of healthy stands that vary in age, height, and patch size to help disrupt the spread of a wildfire.

The No-Action Alternative would not respond to this need, because no activities would occur to interrupt the continuation of changes in fire behavior associated with changes in forest structure. The mature/large timber mixed-storied structural stage may be more susceptible to disturbances ranging from fire to insects/disease and windfall.

The Forest Service has prepared this Environmental Assessment (EA) to determine whether or not implementing the proposed activities would result in significant effects warranting preparation of an Environmental Impact Statement. Based on the results of this analysis, a Draft Finding of No Significant Impact is provided with this document for public review and comment. The Forest Service is the lead agency for this project. The project interdisciplinary team worked closely with their counterparts at the BLM during collaboration and public involvement efforts, development of the Proposed Action, and analysis of effects. Separate decisions will be issued for activities on National Forest System lands and those on BLM lands.

3.C. Description of the Proposed Action Alternative

3.C.(1). OVERVIEW OF FUELS REDUCTION & STAND IMPROVEMENT ACTIVITIES

The Proposed Action represents the expected future condition based on effects of proposed fuels reduction and stand improvement activities as well as past, ongoing and reasonably foreseeable activities (described in Appendix B and the Specialists' Reports). The Proposed Action implements Shoshone County's recommendations (pages 57-62 and 78-85; PF Doc. CR-020) in the Placer Resource Area. The specific actions needed were identified through a comparison of existing and desired conditions and based on the Specialist's Reports for Fire/Fuels (PF Doc. SR-01) and Forest Vegetation (PF Doc. SR-02).

Purpose and Need #1 of 3: To reduce dense fuels so that there is less risk to life, property, and natural resources.

The Proposed Action would make substantial progress toward reducing intensities of wildfire and trending stands away from potential fire behavior that could threaten human life and property in the resource area. In the event of a wildfire, the roadside fuel break would result in reduced fire intensities near the road to allow safe travel and decrease the rate of fire spread, giving fire crews more time to control the fire. Prescribed burning in brush fields would reduce the total fuel volume and the fuel bed depth, as well as increasing the ratio of live to dead fuels, causing a substantial reduction in rate of spread and flame length. As a result of activities under the Proposed Action, treated areas would improve toward Fire Regime Condition Class 1.

Purpose and Need #2 of 3: To increase the proportion of fire-resilient, fire-dependent species so stands are healthier with less fire risk.

Under the Proposed Action, the areas converted to the seedling/sapling stage are more likely to provide a long-term improvement in stand and landscape structure and increased resiliency to insects, diseases and fire due to conversion to long-lived seral species. Fuel management activities would extend or re-inforce the positive trends of improved forest composition.

Purpose and Need #3 of 3: To create a mosaic of healthy stands that vary in age, height, and patch size to help disrupt the spread of a wildfire.

Activities under the Proposed Action would create vegetative interruptions that would reduce the potential for high-intensity fires. Fuel management activities would extend or re-inforce the positive trends of improved forest structure.

The following table identifies proposed activities in the Placer Resource Area, followed by a detailed description of the activities and features of the Proposed Action designed to limit impacts. Please refer also to the enclosed Proposed Action Alternative Map.

Table 2. Summary of proposed activities related to fuels reduction and stand improvement on National Forest System and BLM lands in the Placer Resource Area. (None of these activities would occur under the No-Action Alternative.)

<p>95 Acres of commercial thinning during construction of the Road 456 fuel break (there are a total of 237 acres treated with non-commercial activities; 95 of those acres will also have commercial thinning)</p>	<ul style="list-style-type: none"> ➤ Activities would be accomplished with skyline yarding (on 320 acres), cable yarding (on 95 acres), forwarder yarding (on 152 acres), tractor yarding (on 144 acres), and helicopter yarding (on 158 acres).
<p>1183 Acres of prescribed burning in brush fields</p>	<ul style="list-style-type: none"> ➤ Six helicopter log landings would be constructed to facilitate the helicopter yarding.
<p>420 Acres of daylight thinning in western larch stands</p>	<ul style="list-style-type: none"> ➤ Six helispot locations would be identified in the roadless area through the use of a Global Positioning System (GPS); the helispots would only be constructed in the event of a wildfire.
<p>242 Acres of regeneration activities in lodgepole pine stands</p>	<ul style="list-style-type: none"> ➤ Commercial harvest would result in an estimated 4.2 million board feet of timber (8,356 cunits)
<p>139 Acres of regeneration and site rehabilitation activities in stands with the highest risk of mortality (includes 27 acres of rehabilitation only)</p>	<ul style="list-style-type: none"> ➤ Commercial harvest would result in an estimated 4.2 million board feet of timber (8,356 cunits)
<p>Accomplishing this work safely and efficiently would require approximately 7.3 miles of road reconditioning, 12.3 miles of road reconstruction, and 0.8 miles of temporary ridgetop road construction. The Roads Analysis Process (RAPs) was used to analyze the transportation system needs in the Placer Resource Area and develop the long-term transportation plan (PF Doc. TRAN-1).</p>	

3.C.(2). DESCRIPTION OF FUELS REDUCTION & STAND IMPROVEMENT ACTIVITIES

Fuels reduction and stand improvement activities would reduce current fuels (changing potential fire behavior and intensity), reduce the number of acres where successional development is trending toward high fuel loads, and create fuel breaks in strategic locations (PF Doc. SR-01, p. FF-21). Over the long-term, activities would trend species composition toward an increase in western larch and white pine; and trend structural stages toward increased resiliency.

Design and size of openings under the Proposed Action focused on fire, fuels, vegetative, wildlife and visual concerns for resource management objectives and constraints. Fire resource concerns included landscape arrangement of fuels over the short and long-term in the wildland urban interface and areas immediately adjacent. Maintaining the brush fields and regenerating some stands in the resource area would create a mosaic of vegetation (PF Doc. SR-01, p. FF-21; and Brackebusch, 1973, PF Doc. FF-8). This mosaic would create fuel interruptions that reduce the rate of fire spread.

The spatial arrangement of treatments under the Proposed Action as modeled would disrupt the growth of a fire burning towards Wallace and modify fire behavior so that fire suppression could be more effective. The treatments are strategically placed and overlapping so that they would have the most substantial effect on a fire burning down the Placer Creek drainage toward Wallace (PF Doc. SR-01, p. FF-21; and Finney 2001, PF Doc. FF-9). Vegetative objectives focused on a combination of factors. These included:

- *Opportunities to increase presence, retention and longevity of long-lived seral species (for example, thinning/daylight of western larch).*
- *Opportunities to treat current and near term fuel concerns in and on landscapes that would result in desired fire effects within and adjacent to the wildland urban interface (for example, rehabilitation of areas with high disease and insect mortality adjacent to a heavily traveled road and treatment of areas at high risk to insect and disease mortality).*

Although timber harvesting would cause a short-term (one to three-year) increase in surface fuels due to the branches and other woody debris left after harvest, fuel reduction activities would occur within three to five years, reduce surface fuels to less than the level before harvest. Treated areas would trend toward Fire Regime Condition Class 1 due to improved vegetative composition and structure, reduced fuel loads and losses to fire (PF Doc. SR-01, pp FF-21). In addition, these treatments would create opportunities to improve wildlife habitat. For example, the structure, size and arrangement of Units 1, 2 and 8 incorporate the need for future lynx forage habitat, as well as varying-sized patches of forage mixed with cover/denning for a number of species, including lynx (PF Doc. SR-07.)

The spatial patterns of fuel treatments in landscapes would most likely determine the effectiveness in modifying wildfire behavior (Hessburg and others, 2000, page 29; PF Doc. VEG-R13). Fuel treatments are expected to change fire behavior but not necessarily stop fire (PF Doc. VEG-R35, page 11).

Random fuel treatment arrangements are extremely inefficient in changing fire behavior, requiring perhaps 50 to 60 percent of the area to be treated compared to 20 percent when treated in a strategic fashion (Finney, 2001, page 30; PF Doc. VEG-R13).

Over 40-acre openings

The size of harvest openings created by even-aged silvicultural methods is normally limited to 40 acres or less (FSM 2471.1; PF Doc. VEG-27). The project team has asked the Regional Forester to approve exceptions in the Placer Resource Area.

Under the Proposed Action, four units would exceed the 40-acre opening size: Unit 1 (including 1a), Unit 2 (including 2a) and Unit 8 are lodgepole pine stands at high risk of mortality. Unit 6 has a high Douglas-fir component with root disease mortality in an area where treatment could be a visual concern.

Exceeding the 40-acre size would be necessary because treating small or isolated stands without assessing the broader landscape would likely be ineffective in reducing wildfire extent and severity (PF Doc. VEG-R13, page 29).

The public was notified through the project scoping letter and legal notice that some openings would be larger than 40 acres.

➤ **ROAD 456 FUEL BREAK (APPROXIMATELY 237 ACRES)**

Construction of this fuel break was recommended in the Shoshone County Fire Mitigation Plan (page 80; PF Doc. CR-020) to reduce fuels immediately adjacent to the heavily traveled Road 456, and along Placer Creek which provides the water supply for the community of Wallace (managed by the East Shoshone County Water District). Fuels would be treated 150 feet from each side of the road where it crosses BLM and National Forest System lands. Non-commercial activities (thinning, limbing trees) would occur on approximately 237 acres; commercial thinning would also occur on approximately 95 of those acres.

Where the road and this 150-foot fuel treatment area fall within a riparian buffer (as defined by the Inland Native Fish Strategy, 1995, PF Doc. AQ-9), the only work that would be done would be noncommercial thinning of some trees smaller than six inches diameter, limbing of trees to reduce the ladder fuels, and hand piling and burning surface fuels. Commercial thinning would occur above Road 456 (but still within the riparian buffer). This wood is not available for large woody debris recruitment into Placer Creek (PF Doc. SR-05, page 26). Outside of the riparian buffer, surface fuels would be hand piled to reduce soil impacts, commercial thinning would reduce canopy closure, and tree limbing would reduce ladder fuels. Pile burning would be allowed in riparian areas. Broadcast burns would not be *ignited* in the riparian areas, although such prescribed fires could *burn into* riparian areas.

These activities would meet objectives for the immediate future by reducing surface and ladder fuels and, in some cases, crown fuels. The length of time these activities would provide benefits depending on the initial site conditions. Benefits would be shorter lived in young stands of conifers or brush, which would provide increasing amounts of fuel as they grow, but would persist for long periods in mature stands of trees.

➤ **PRESCRIBED BURNING IN BRUSH FIELDS (APPROXIMATELY 1,183 ACRES)**

An estimated 1,183 acres of prescribed burning is proposed in brush fields in the Placer Resource Area (about 659 acres managed by Forest Service and 524 acres managed by the BLM). The objective is to reduce fuels and fuel continuity on broader landscape scales. A secondary benefit would be to rejuvenate the brush species desirable for wildlife. Activities would meet objectives by reducing fuels and thereby changing potential fire behavior. These benefits could last for approximately two to three decades, and would maintain more options to reduce fuels into the future. For example, maintenance treatments within 10 to 15 years would maintain the vigor of the shrubs; without maintenance, the brush-related fuels would build up again.

Table 3. Brush field burning units proposed in the Placer Resource Area.

Unit #	Acres
Placer 1	60
Placer 2	85
Placer 3	292
Flora Gulch	23
Hord Gulch	115
Red Oak	114
West Experimental	141
Lower West Placer	20
West Fork Placer	77
Placer II-1	37
Placer II-2	48
Placer II-3 and II-4	171
1,183 total acres	



Figure 6. Brush field in the Upper Placer Creek Watershed.

➤ **DAYLIGHT THINNING IN WESTERN LARCH (APPROXIMATELY 420 ACRES)**

Table 4. Commercial daylight thinning units proposed in western larch stands in the Placer Resource Area.

Unit #	Acres	Logging System	Fuel Treatment
<i>National Forest System</i>			
9	6	Tractor	Underburn
10	7	Skyline	Underburn
10a	5	Tractor	Underburn
12	7	Helicopter	Underburn
12a	7	Tractor	Underburn
14	8	Helicopter	Underburn
15	18	Skyline	Underburn
16	22	Helicopter	Underburn
17	15	Skyline	Underburn
21	28	Skyline	Underburn
21a	4	Helicopter	Underburn
22	7	Skyline	Underburn
23	16	Skyline	Underburn
25	11	Forwarder	Underburn
26	13	Skyline	Underburn
27	23	Skyline	Underburn
28	53	Forwarder	Underburn
29	25	Forwarder	Underburn
30	7	Helicopter	Underburn
31	13	Skyline	Underburn
<i>295 acres commercial thinning on NFS lands</i>			
<i>Bureau of Land Management</i>			
2blm	25	Tractor	Slashbust
3blm	52	Tractor	Slashbust
5blm	30	Helicopter	Grapple pile
6blm	10	Helicopter	Grapple pile/ Lop & Scatter
7blm	8	Skyline	Slashbust
<i>125 acres commercial thinning on BLM lands</i>			
<i>Approximately 420 total acres commercial thinning</i>			



Figure 7. Western larch stands in Upper Placer Creek.

Daylight thinning is proposed on approximately 420 acres in the western larch component of several stands. The proposed treatment would reduce the shading and crowding of the western larch crowns to allow this resilient species to grow and dominate stands over the long term. Proposed treatments focus on stands with the healthiest and highest representation of larch.

This activity meets the definition of commercial thinning from below (in the lower crown classes), with approximately 40 to 60 percent or more of the existing canopy remaining after treatment.

These activities would provide fuel reduction benefits for a period of at least 20 years, when ladder fuels are projected to return to previous levels. Modeling indicates the removal of crown fuels through daylight thinning activities would reduce the crown fire hazard for a substantial period of time, possibly up to 100 years or more.

➤ **REGENERATION IN LODGEPOLE PINE (APPROXIMATELY 242 ACRES)**

Lodgepole pine has a relatively short life span and is likely to fade from stands as their age reaches 90 to 120 years (Zack and Morgan, 1994: PF Doc. VEG-R14). All of the lodgepole pine stands in the Placer Resource Area originated after the 1910 fire and are already 80 to 100 years old. Lodgepole pine occupies about 1,300 acres (15 percent) of the Placer Resource Area. About one quarter of the lodgepole (325 acres) is within the roadless area where no treatment is proposed.

The Proposed Action would treat about 20 percent of the lodgepole pine in the entire Placer Resource Area, focusing only on the “high to very high” hazard rating stands. Treatments focus on those stands that are at high risk of mortality of trees greater than 6 inches diameter at breast height.

In areas treated under the Proposed Action, mountain pine beetle hazard would drop from the current “high to very high” hazard condition to a “very low” hazard level, gradually increasing over the next 80 to 100 years as stands mature (PF Doc. SR-02, p. VEG-13). Units would retain up to 20 trees per acre in groups (one-half to five acres in size) and single trees at irregular spacing, resembling a variable retention arrangement as described by Franklin (PF Doc. VEG-R37). The largest and healthiest western larch and white pine would be retained in compliance with white pine guidelines and snag protocol (PF Doc. VEG-20, VEG-21, and VEG-22).

Table 5. Regeneration (shelterwood) treatments proposed in stands dominated by lodgepole pine in the Placer Resource Area.

Unit #	Acres	Logging System	Associated Fuel Treatment
<i>National Forest System</i>			
1	19	Skyline	Underburn
1a	22	Forwarder	Underburn
2	53	Skyline	Underburn
2a	41	Forwarder	Underburn
3	10	Skyline	Underburn
3a	16	Helicopter	Underburn
4	10	Skyline	Underburn
5	12	Tractor	Underburn
8	23	Skyline	Underburn
8a, b	19	Tractor	Underburn
11	17	Skyline	Underburn
<i>242 acres regeneration harvests on NFS lands</i>			
<i>Bureau of Land Management</i>			
<i>0 acres regeneration harvest in lodgepole on BLM lands</i>			
<i>242 total acres regeneration harvests</i>			



Figure 8. Although not occurring in the Placer Resource Area yet, mortality caused by mountain pine beetles (the reddish area in the center of the photo) is visible from Interstate 90 and Lookout Pass, nearby the Placer Resource Area. (Photo taken in the summer of 2004.)

Lodgepole pine and Douglas-fir would be retained when no other options exist. Harvest of individual large-diameter trees may occur, however the effort is to leave the largest and most resilient trees.

During unit layout, timber harvest, and prescribed burning, tools such as landscape arrangement, fuel arrangement and burn parameter adjustment would be used to ensure at least half of the leave groups survive prescribed burning. Reasonably, about half of the leave trees/groups would have high mortality associated with treatment. Long-term objectives for these stands strive to enhance the variability of these areas. Variability would be substantial within treatment areas because the amount of tree retention would be based on what is available on site. Sites would be regenerated with a combination of natural regeneration and, in some cases, lodgepole pine planting.

➤ **REGENERATION & SITE REHABILITATION ACTIVITIES (APPROXIMATELY 139 ACRES)**

These activities would focus on stands with the most serious risk of mortality. Most of these stands are experiencing mortality due to root diseases; treatments on these sites would meet the definition of a shelterwood or seedtree harvest. However, Unit 7 has had high mortality due to a combination of root disease and planting of off-site ponderosa pine trees after the 1910 Fire. Therefore, no commercial treatment is proposed in Unit 7 – only slashing, underburning and planting would occur.

Leave trees would remain over the long term to serve as a seed source, as structure, and to maintain the visual aesthetics of the area. The shelterwood units would have up to 20 trees per acre on sites in groups (one-half to five acres in size), with single trees retained at irregular spacing. The seedtree units would have up to 12 trees per acre on sites in groups.



Figure 9. Near Red Oak Gulch in the Placer Resource Area, this is one of the areas that was planted with off-site ponderosa pine and has had high mortality. Rehabilitation

The largest and healthiest western larch, white pine and ponderosa pine would be left, consistent with large tree retention requirements of the HFRA (PL 104-148, Section 102[f]; PF Doc. CR-024). Douglas-fir would be retained only when no other options exist. Harvest of individual large-diameter trees may occur, however the effort is to leave the largest, most resilient trees over the long term. Allocated old growth would not be affected, because there is no allocated old growth within the Placer Resource Area. Leave groups would be placed on the landscapes to ensure that at least 80 to 90 percent of the trees/areas do not have high mortality during prescribed burning treatments. Variability would be substantial within treatment areas because the amount of tree retention would be based on what is available on the site.

Table 6. Regeneration and site rehabilitation units proposed in the Placer Resource Area.

Unit #	Acres	Treatment	Logging System	Associated Fuel Treatment
<i>National forest System</i>				
6	40	Group Shelterwood	Helicopter	Underburn
7	27	Rehabilitation	None	Slash/Underburn
13	37	Group Shelterwood	Skyline	Underburn
24	10	Group Shelterwood	Skyline	Underburn
<i>114 acres regeneration and site rehabilitation on NFS lands</i>				
<i>Bureau of Land Management</i>				
1blm	18	Group seedtree	Tractor	Grapple pile
4blm	7	Group seedtree	Helicopter	Grapple pile
<i>25 acres regeneration and site rehabilitation on BLM lands</i>				
<i>139 total acres in regeneration/site rehabilitation units</i>				

3.C.(3). IMPLEMENTATION FEATURES OF THE PROPOSED ACTION

The proposed action was designed to accomplish project objectives without significantly impacting resources in the Placer Resource Area. The following are specific guidelines that would be followed during implementation. Refer to the appropriate Specialist's Report as noted for additional discussion of these features.

Features Related to Fuels Management

After harvest is complete, a fire/fuels specialist and silviculturist would assess fuel conditions in the unit and determine whether prescribed burning could be implemented safely and effectively without further fuels treatment, or if additional fuel treatment methods (such as slash piling or slashing) are needed to meet the objectives of the silvicultural prescription before prescribed burning occurs. Prescribed burning would only occur when soil moistures are above 25 percent.

For more information, refer to the Specialists's Report on Fire/Fuels (PF Doc. SR-01).

The IPNF is party to the North Idaho Smoke Management Memorandum of Agreement (PF Doc. FF-42), which established procedures regulating the amount of smoke produced from prescribed fire. The North Idaho group uses the services and procedures of the Montana State Airshed Group. The procedures used by the Montana Group are considered to be the "best available control technology" by the Montana Air Quality bureau for major open burning in Montana. These procedures limit smoke accumulations to legal, acceptable limits. The Coeur d'Alene River Ranger District strictly complies with these procedures, and has had no air quality violations.

About 50 percent of the leave trees/groups in treated lodgepole pine stands would have high mortality associated with fuels treatment; outside of lodgepole pine areas, approximately 10 to 15 percent mortality of overstory trees would be anticipated in treated stands as a result of prescribed burning. There is no intent to salvage this type of mortality in the project area; the trees would be retained to provide wildlife habitat and as a source of nutrients.

Features Related to Vegetation Management

A site-adapted species/seed source would be utilized in all regeneration areas. Site preparation, fuel treatment, and tree planting would occur within five years of harvest in areas treated with regeneration harvest. Site preparation and/or fuel treatment may include a combination of slashing, pruning, prescribed burning or grapple piling, depending on post-harvest conditions that meet both site preparation and hazard reduction objectives.

For more information, refer to the Specialists's Report on Forest Vegetation (PF Doc. SR-02).

The largest and healthiest western larch and white pine would be retained, consistent with large tree retention requirements of the HFRA (PL 104-148, Section 102[f]; PF Doc. CR-024).

Features Designed to Protect Threatened, Endangered & Sensitive Plants

There are no known occurrences of Threatened/Endangered plants in the Placer Resource Area. Known Sensitive plant occurrences in the Placer Resource Area would be buffered from harvest and other project-related activities by a minimum of 100 feet.

For more information, refer to the Specialists's Report on TES Plants (PF Doc. SR-03).

Should rare plants be located during implementation, one or more of the following protective measures would be implemented: 1) drop the proposed unit from activity; 2) modify the proposed unit or activity, 3) implement a 100-foot slope distance buffer, and/or 4) implement Timber Sale Contract provisions for Protection of Endangered Species, and Settlement for Environmental Cancellation.

Prescribed fire **ignition** would not occur within riparian habitats, although fire would be allowed to burn **into** riparian areas. Higher fuel moistures in riparian habitats during prescribed burning conditions would likely limit the spread of any prescribed fire. To limit ground disturbance, fire line would not be constructed in riparian areas for the prescribed burn.

Features Designed to Reduce the Spread of Noxious Weeds

Noxious weed prevention strategies on the Coeur d'Alene River Ranger District are conducted based on the Noxious Weeds Final Environmental Impact Statement and Record of Decision (USDA Forest Service, 2000; PF Doc. NW-2). Measures to protect Threatened, Endangered and Sensitive plant population viability and habitat capability during noxious weed treatment would be implemented following guidelines provided in that document. All roads used for implementation of harvest activities would be treated for noxious weeds, both prior to and after project completion. To help reduce the spread of noxious weeds and prevent the introduction of new invader species, a contract clause related to equipment washing would be used in all construction and timber sale contracts.

For more information, refer to the Specialists's Report on Noxious Weeds (PF Doc. SR-04).

Features Designed to Protect Aquatic Resources

Best Management Practices (BMPs) – All activities would be designed to protect water quality and aquatic resources through the use of BMPs, which are the primary mechanism to enable the achievement of water quality standards. 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.

For more information, refer to the Specialists's Report on Aquatic Resources (PF Doc. SR-05).

Sediment Reduction Activities – On roads, spot graveling (with approximately 6 inches of gravel) would be required at all stream crossings, rolling dips, and in any wet areas. This measure is highly (92%) effective in reducing the amount of sediment delivered to streams (Foltz and Truebe 1995; PF Doc. AQ-8).

Inland Native Fish Strategy (INFS) – In development of the proposed action, standards and guidelines of the INFS (USDA Forest Service, 1995, pages A-6 through A-15; PF Doc. AQ-9) were used specifically to protect water and aquatic biota within the Resource Area with application of streamside buffers. If Threatened or Endangered fish species are located during project implementation, protective measures would be implemented in compliance with the Inland Native Fish Strategy.

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 100-foot "no activity" buffer as prescribed by the District Botanist.

Features Designed to Protect Soils

Fine organic matter and large woody debris would be retained on the ground for sustained nutrient recycling in harvest units, consistent with Graham et al (1994; PF Doc. SOIL-25). In addition, only log-length yarding would be allowed in harvest units to further improve nutrient recycling (no whole-tree yarding). On units designated for tractor harvest, planned skid trails would be established at approximately 150-foot spacing to reduce overall soil compaction and displacement; skid trails would converge at the landings. Scheduling harvest activities to occur when the soil profile is dry helps to reduce the effects from compaction (Poff, 1996, p. 482; PF Doc. SOIL-42). Prescribed broadcast burning and underburning would be of low intensity and would occur when the soil's surface horizon has at least 25% moisture content in order to protect the site's surface organic component.

For more information, refer to the Specialists's Report on Soils (PF Doc. SR-06).

To minimize erosion and ensure compliance with State water quality standards, all proposed road construction and timber harvest activities associated with the Placer Resource Area would be completed using Best Management Practices as described regarding Aquatic Resources, above.

In those areas where machine or hand piling of slash is proposed, the foliage and branches would be allowed to over winter on the site, allowing potassium to leach out from the slash material. Management of large coarse woody debris and other organic matter (limbs and tops) would follow the research guidelines in Graham et al (1994; PF Doc. SOIL-25). Yarding would not remove tops from site. Tops and branch slash would remain on site over winter before further treatment.

Features Designed to Protect Wildlife Habitat

Snags would be retained to meet the Northern Region Snag Management Protocol (PF Doc. VEG-20 and VEG-21). Long-lived, seral conifer species (western white pine and western larch) of all sizes would be favored to retain on the site (especially those 18 inches or greater in diameter) unless removal is unavoidable due to safety reasons or special circumstances.

For more information, refer to the Specialists's Report on Wildlife (PF Doc. SR-07).

All closed roads that are opened, constructed or reconstructed for the project would be closed with a gate or barrier during project activities. All of these roads would be effectively closed following project activities (not to exceed three years). If project activities were not completed within three years, a partial replacement of obstructions or other closure structures would occur. At the end of project activities, all structures would be replaced in as good as or better condition than currently exists. Temporary roads would be recontoured following harvest activities.

Prescribed burning would be implemented in a manner that would avoid disturbance of roosting bats by preventing fire within 400 meters of the entrance to a cave or mine when bats are present, unless a site-specific assessment indicates a more appropriate distance to avoid effects of heat and smoke on bats (PF Doc. WL-58).

Incidental trees charred during prescribed burning operations would be retained on site, providing black-backed woodpecker habitat.

If any Threatened or Endangered wildlife species are observed in the resource area during implementation, the district wildlife biologist would determine any project modifications necessary under the timber sale contract provisions to protect the species and its habitat based on applicable laws, regulations and management recommendations for the species. If any Threatened, Endangered or Sensitive species is found to be nesting in an area scheduled for prescribed fire or silvicultural manipulation, activities would be delayed in the area as recommended by the wildlife biologist.

Features Designed to Protect Recreation Trail Facilities

To protect the groomed snowmobile route, log haul would not be allowed on Forest Road 456 between December 15 and April 1.

For more information, refer to the Specialists's Report on Recreation (PF Doc. SR-08).

Features Designed to Protect Heritage Resources

Surveys to locate heritage resources within the Placer Resource Area have been completed (PF Doc. HR-01). All known heritage resource sites would be protected under either alternative, as directed by the Cultural Resources Management Practices (Forest Plan, Appendix FF; PF Doc. HR-01). Any future discovery of heritage resource sites would be inventoried and protected in accordance with the National Historic Preservation Act if found to be of cultural significance.

3.C.(4). MITIGATION MEASURES

Analysis of proposed activities indicate potential effects that are well within applicable regulatory thresholds (for example, those identified by the Forest Plan, County Fire Mitigation Plan, Endangered Species Act, Clean Water Act, etc.); therefore no mitigation measures were identified as necessary to reduce effects to natural resources or the human environment. Refer to Section 4 and the Specialist's Reports for more discussion of effects.

3.C.(5). IMPLEMENTATION AND EFFECTS MONITORING

There are three levels of monitoring to ensure activities are implemented as intended and effects are within the scope of those predicted. These include Forest Plan monitoring, Forest Corporate monitoring, and project-specific monitoring, as discussed below. Monitoring will be consistent with requirements of the HFRA (PL 108-148, Section 102[g]); PF Doc. CR-024).

Forest Plan Monitoring

The Forest Plan documents a system to monitor and evaluate Forest activities related to timber, visual resources, recreation, cultural resources, wildlife, water/fish, Threatened and Endangered species, minerals, lands and environmental quality (Forest Plan, Chapter IV, pages IV-10 through IV-12; PF Doc. CR-002). For

example, sale administrators and other contracting representatives would monitor all timber sales to ensure that activities are conducted in accordance with contract specifications (that activities occur where and when they should to protect resources such as soils and wildlife, that yarding is accomplished as planned and specified in the contract to protect soils, that seedlings are planted at the appropriate spacing, etc.). Reforestation success in regeneration areas would be monitored until the District silviculturist certifies that they meet stocking requirements.

In addition, BMPs would be incorporated into many different phases of the project. The district hydrologist would review the design of all proposed temporary roads and all road maintenance to assure compliance with BMPs. The engineering representative and the district hydrologist would monitor all temporary and reconstructed roads to ensure that they were built or restored to specifications. A sale administrator would 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 would be agreed upon and enacted, when necessary, to meet objectives and standards on the ground. Monitoring of BMPs has determined that recent projects on the IPNF have been implemented as designed and have achieved the desired objectives (IPNF Monitoring Reports for 2004 [pp. 37-44, 60; PF Doc. CR-026], 2003 [pp. 41-46, 76-77; PF Doc. CR-022], 2001 [pp.27-40; PF Doc. CR-017], and 2000 [pp. 34-41, PF Doc. CR-016]). Additional information on monitoring is provided in the Specialist's Report on Aquatic Resources (PF Doc. SR-05, Aquatics Appendix C).

The Proposed Action Alternative would comply with the specific monitoring requirements identified by the Forest Plan.

Forest Corporate Monitoring

In December 1999, the Ecosystem Team for the Idaho Panhandle National Forests facilitated development of a Corporate Monitoring System. The emphasis is on monitoring progress in restoring the ecosystems of the Idaho Panhandle and in being more consistent in the way we analyze effects to the ecosystems. Monitoring is tied closely to findings of the Interior Columbia Basin and Geographic Assessment. The types of data to be tracked for long-term monitoring are shown in the following table.

Table 7. Long-term monitoring of ecosystem core data.

Ecosystem condition core data monitoring element	Core data to be monitored
Hydrologic integrity	Road density (miles per square mile)
Water yield	Hydrologic openings (equivalent clearcut acres)
Sediment delivery	Crossing risk (tons of sediment)
Wildlife security and public access	Open road density
Changes in forest structure outside the historic range of variability	Forest structure by size and age-class groups
Changes in species composition outside historic range of variability	Forest composition by forest cover type group
Habitat loss and species decline	TES dry and moist/cold site habitat restoration
Changes in landscape pattern	Landscape pattern indicators (mean patch size and variability, edge density, etc.)

Monitoring Specific to the Placer Resource Area

Water Quality Monitoring: The BLM has completed monitoring of turbidity and sediment levels from before and after prescribed fire activities on lands they manage within the Placer Creek watershed (Stevensen, personal communication; PF Doc. AQ-54). Idaho Department of Environmental Quality has conducted similar analysis (East Shoshone County Water District Source Water Assessment Report, November 9, 2000; PF Doc. AQ-55) and will continue to monitor water quality. The East Shoshone County Water District performs daily water quality monitoring with independent lab analysis to assure water quality standards are met (Scheel, personal communication; PF Doc. AQ-56).

Monitoring of Permanent Stream Channel Cross-sections: Cross-sectional profiles, fish presence, and stream particle size distribution have been measured in Placer Creek (PF Doc. AQ-43). The Forest Service would continue these measurements on an annual basis for three years following completion of post-treatment activities, then bi-annually in the fifth and seventh years following completion, to determine whether any changes in stream channel morphology and fish populations occur as a result of water or sediment yield increases.

3.D. Alternatives Considered But Eliminated

Suggestion: Focus on Brush Field Burning Only

Description

The Lands Council suggested a “non-commercial restoration alternative” (PF Doc. PI-08, p.1). Idaho Conservation League suggested an alternative that would “consider additional prescribed burning without thinning in any units where fuel loads and topography allow. Using prescribed burns as the primary tool outside of the wildland/rural intermix will simulate natural processes, reduce the possibility of catastrophic fires, and recreate a more natural mosaic of varying age classes,” (PF Doc. PI-29, p. 2). As suggested, this alternative would include the brush field burning and the portion of the fuel break activities along Road 456 that remove ladder fuels and pile/burn the surface fuels. It would not include any commercial timber harvest.

Effectiveness

Purpose and Need #1 of 3: To reduce dense fuels so that there is less risk to life, property, and natural resources. The project team considered the Lands Council and Idaho Conservation League’s suggested alternative, and while it may meet a portion of the purpose and need, it was not responsive enough to consider it in detail. The Fires/Fuels Specialist Report on (page 21) best describes the interdisciplinary team’s concerns with this alternative:

The spatial arrangement of vegetation influences the growth of large fires. Patches of vegetation that burn relatively slower or less severely than surrounding patches can reduce fire intensity, severity, or spread rate, or may force the fire to move around them by flanking (at a lower intensity), which locally delays the forward progress of a fire (Graham et al. 2004, page 29; PF Doc. FF-6). The spatial arrangement of treatments under the Proposed Action would likely disrupt the growth of a fire burning towards Wallace, and modify fire behavior so that suppression might be more effective. The treatments are strategically placed and overlapping, so that they would have the most substantial effect on a fire burning down the Placer Creek drainage towards Wallace (Finney 2001; PF Doc. FF-9).

It is neither possible nor desirable to “fireproof” fire dependent ecosystems, but active land management can reduce potential effects of severe fire. Federal land management agencies can mimic natural disturbances, but it is essential for managers to consider that current conditions may be considerably different from those conditions that occurred historically. Reintroduction of native processes such as fire without modification of structural patterns, fuel loadings, and spatial distributions can produce unpredictable and undesirable effects (Quigley et al. 1996, pages 165 and 184; PF Doc. FF-21).

It is this last sentence that provides the best response as to why this alternative does not fully address the purpose and need for action in the Placer Creek watershed. Placer Creek provides the drinking water for Wallace and other communities; attempting to use prescribed fire without modifying the fuel loadings could have unpredictable and undesirable effects.

Purpose and Need #2 of 3: To increase the proportion of fire-resilient, fire-dependent species so stands are healthier with less fire risk. The suggested alternative does not take into account the existing larch within the area. If no efforts are made to thin in these stands to promote the larch, they will be choked out of the stands by other species (grand fir, hemlock, Douglas fir) that require less sunlight. Larch is a more resilient species to both fire, insect and disease than these other species. In order to gain as much resilience as possible to the municipal watershed, it is imperative that larch is maintained on the landscape.

Purpose and Need #3 of 3: To create a mosaic of healthy stands that vary in age, height, and patch size to help disrupt the spread of a wildfire. The suggested alternative ignores the high risk associated with 80 to 100-year old lodgepole pine stands along the upper ridges of the analysis area. Left untreated, these stands will succumb to insects, and pose a higher risk of fire that would be difficult to control before it heads down-slope and through the watershed. These untreated stands would also provide a continuous canopy, with no opportunity to drop a wildfire to the ground as discussed earlier.

A key element of the Shoshone County Fire Mitigation Plan is to provide safe ingress/egress on Road 456 up Placer Creek. Treatments are to include thinning to open the canopy adjacent to the road, as well as limbing trees and piling/burning surface fuels. Eliminating thinning means the canopy adjacent to the road would remain closed, and would **not** modify the behavior of any fire that spread from another location and came into contact with it. Thinning the canopy helps to drop fire from the canopy down to the ground, slowing the fire down and providing an opportunity for suppression efforts. In addition, limbing and piling of surface fuels would help to reduce human-caused ignitions along the roadway only.

In Summary

Purpose and Need #1 of 3: To reduce dense fuels so that there is less risk to life, property, and natural resources. The suggested alternative would reduce fuels over the short term, but use of prescribed fire without modifying structural patterns, fuel loadings, and spatial distributions can produce unpredictable and undesirable effects.

Purpose and Need #2 of 3: To increase the proportion of fire-resilient, fire-dependent species so stands are healthier with less fire risk. The suggested alternative would not increase the proportion of fire-resilient, fire-dependent species.

Purpose and Need #3 of 3: To create a mosaic of healthy stands that vary in age, height, and patch size to help disrupt the spread of a wildfire. The suggested alternative would not take any action to create a mosaic of stands.

In Conclusion

Based on these considerations, effectiveness of this alternative would not be sufficient to meet the purpose and need identified for the Placer Resource Area.

Suggestion: Focus on Salvage or Sanitation Harvest with Commercial Thinning and Prescribed Burning

Description

Idaho Conservation League recognized that, “in areas with high fuel loads, some thinning and removal of ladder fuels will be required before burning can be allowed,” and recommended that one alternative “substitute [a] large amount of salvage/sanitation harvesting with commercial/pre-commercial thinning and prescribed burning. This alternative would still shift forest structure toward historic conditions, reduce fuel loads, provide a commercial product, and minimize sediment production,” (PF Doc. PI-29, p. 2). As suggested, this alternative would include the brush field burning and the fuel break activities along Road 456. It would also include the commercial thinning harvest to promote healthy western larch.

Effectiveness

Purpose and Need #1 of 3: To reduce dense fuels so that there is less risk to life, property and natural resources. The project team considered the Idaho Conservation League’s suggested alternative, and while it may meet a portion of the purpose and need, it was not responsive enough to consider it in detail. As with the suggested alternative that would focus on brush field burning only, by eliminating the proposed regeneration harvest units, we lose the spatial arrangement needed to have an effect on fire behavior (Specialist’s Report on Fire/Fuels, p. 21). Placer Creek provides the drinking water for Wallace and other communities; attempting to use prescribed fire without modifying the fuel loadings could have unpredictable and undesirable effects.

Purpose and Need #2 of 3: To increase the proportion of fire-resilient, fire-dependent species so stands are healthier with less fire risk. This suggested alternative would meet a portion of the purpose and need for the project in the commercial thinning acres. However, replacing the regeneration harvests with a sanitation or salvage harvest is not feasible for two reasons. First, salvage implies harvest of dead and dying trees, and while the lodgepole pine stands are at high risk of insects and disease due to their age, they are not currently experiencing heavy mortality and there would be little to harvest. Therefore, salvage harvesting would not be an economically viable operation at this time. Second, sanitation harvest implies harvesting the “at-risk” individual trees, which in this case the entire stands are at high risk.

Purpose and Need #3 of 3: To create a mosaic of healthy stands that vary in age, height, and patch size to help disrupt the spread of a wildfire. A major direct effect of regeneration harvest is the almost complete reduction in crown fuels in the treated stands (PF Doc. SR-01, p. FF-18). Because regeneration harvests remove almost all crown fuels, they act as a barrier to crown fire spread. The regeneration treatments (including shelterwood, group shelterwood, seed tree and group seedtree treatments) under the Proposed Action were strategically located and overlapped to most effectively disrupt the growth of a fire burning down the Placer Creek drainage toward Wallace, and modify fire behavior so that suppression can be more effective (refer to the enclosed Proposed Action map and PF Doc. SR-01, p. FF-21).

Preliminary consideration determined that regeneration opportunities trending toward historic composition and structure would be foregone with this alternative due to the lack of openings in the canopy needed to allow establishment of shade-intolerant species. Analysis (using the Forest Vegetation Simulator model) indicated this alternative would not meet the purpose and need, because growth in the existing structure would fall below Forest Plan expectations due to the onset of root diseases, adding to the fuel load in the wildland urban interface.

In Summary

Purpose and Need #1 of 3: To reduce dense fuels so that there is less risk to life, property, and natural resources. The suggested alternative would reduce fuels over the short term, but use of prescribed fire without modifying structural patterns, fuel loadings, and spatial distributions can produce unpredictable and undesirable effects.

Purpose and Need #2 of 3: To increase the proportion of fire-resilient, fire-dependent species so stands are healthier with less fire risk. The suggested alternative would be effective in maintaining the healthy western larch, but would not treat the high risk lodgepole pine stands in the project area.

Purpose and Need #3 of 3: To create a mosaic of healthy stands that vary in age, height, and patch size to help disrupt the spread of a wildfire. The suggested alternative would not have any effect on age, height or patch size to help disrupt the spread of a wildfire.

In Conclusion

Based on these considerations, effectiveness of this alternative would not be sufficient to meet the purpose and need identified for the Placer Resource Area.

Since neither of these suggested alternatives would meet the objectives identified as the purpose and need for this project in accordance with regulations published by the Council on Environmental Quality (CEQ), they were not considered in further detail, which is consistent with the direction provided by HFRA (Sec. 104[c][1]).

PART 4. ENVIRONMENTAL IMPACTS

4.A. Introduction

This section provides a summary of environmental impacts that would occur under the No Action or Proposed Action Alternatives as described in the Specialist's Reports prepared for this project (provided with this Environmental Assessment, and available online at <http://www.fs.fed.us/ipnf/eco/manage/nepa>). The environmental analysis considered direct, indirect and cumulative effects. Direct effects are caused by the action and occur at the same time and place. Indirect effects occur later in time as a result of the action, but are still reasonably foreseeable. Cumulative effects result from the incremental impact of an action when added to other past, ongoing and reasonably foreseeable actions, regardless of what agency or person undertakes the action. Activities occurring under the Proposed Action are described in Part 3 of this document. Past, ongoing and reasonably foreseeable activities and their effects are described in Appendix B and in the Specialist Reports as appropriate.

The discussions below provide the necessary information to determine whether or not to prepare an Environmental Impact Statement. Based on this analysis, a draft Finding of No Significant Impact has been prepared. The context of this proposal is limited to the locale of the Placer Resource Area. Design features included in this proposal (described in Part 3, Section C of this EA, and in the Specialists' Reports, PF Doc. SR-01 through SR-10) would minimize and/or avoid adverse effects to such an extent that the impacts are almost undetectable and immeasurable even at the local level, and are therefore not cumulatively significant.

4.B. Impacts to Fire/Fuels

Fire depends upon three conditions: ignition, oxygen, and fuels. In a wildfire situation, the type, arrangement and amount of fuels can greatly affect an agency's ability to manage or suppress wildfire, especially in the Wildland Urban Interface. The Fire/Fuels effects analysis for the Placer Resource Area proposal was based largely on Fire Regime Condition Class (FRCC) and potential fire behavior and effects (as modeled by the Fire and Fuels Extension to the Forest Vegetation Simulator or FFE-FVS). Fire Regime Condition Class is a classification of the departure from the natural regime (PF Doc. SR-01, p. FF-6), using three condition classes for each fire regime: low (Condition Class 1), moderate (Condition Class 2), and high (Condition Class 3). Low departure is considered to be within the natural (historic) range of variability, while moderate and high departures are outside the natural range of variability and need to have fire effects and fuel characteristics restored. The FRCC analysis for the Placer Resource Area showed that the current landscape as a whole is in Condition Class 2 (see Figure 5). Dry habitat types in the area are most altered, and as a group fall into Condition Class 3 (Fire/Fuels Specialist's Report, p. FF-7).

FFE-FVS was used in this analysis to assess potential fire behavior and fire effects considering current and future stand conditions (Fire/Fuels Specialist's Report, page FF-3). Primary indicators of fire hazard include potential flame length (related to fuel loading and arrangement), torching (when individual or small groups of trees torch out but solid flame is not consistently maintained in the canopy), crowning (a running or continuous fire in the tree canopy), and rate of spread (how fast a fire is moving).

Under the No-Action Alternative, the landscape would further deteriorate into Condition Classes 2 and 3, because there would be no activities to reduce the buildup of canopy and surface fuels, which has been identified as necessary for this area (see the Purpose and Need for Action; Fire/Fuels Specialist's Report, p. FF-16). Fire behavior would maintain its trend away from historic condition, creating an increasing challenge to fire suppression forces (PF Fire/Fuels Specialist's Report, page FF-15). Fires would continue to be more intense and therefore more dangerous to firefighters. Fire exclusion would heighten fire hazards to homes as people continue to develop and settle lands along the wildland-urban interface. The loss of homes and human life can escalate as the surrounding forest grows and there is a build-up of canopy and surface fuels. This trend would eventually reach a point where conditions are inconsistent with the goals, objectives and standards established in the Forest Plan and the Shoshone County Fire Mitigation Plan (Fire/Fuels Specialist's Report, page FF-23).

Under the Proposed Action, timber harvesting would cause a short-term (one to three-year) increase in the amount of surface fuels due to the unmerchantable branches and other fuels that are left after harvest; however, there would be a reduction in surface fuels once surface fuel reduction activities are completed (in three to five years). Where lopping and scattering occurs in commercial thinning units, surface fuels would only decrease through decomposition, which could take five to ten years (Fire/Fuels Specialist's Report, pp. FF-17 through FF-20).

In the event of a wildfire, the roadside fuel break would result in reduced fire intensities near the road to allow safe travel and decrease the rate of fire spread, giving fire crews more time to control the fire (Fire/Fuels Specialist's Report, pp. FF-19, 20). Burned brush fields exhibit substantially lower rates of spread and flame lengths than unburned brush fields, especially when live woody fuel moistures are below 100 percent, because prescribed burning reduces the total fuel volume and fuel bed depth, as well as increasing the ratio of live to dead fuels (Fire/Fuels Specialist's Report, p. FF-19). Benefits would last approximately two to three decades and would maintain more options to reduce fuels into the future. For example, maintenance treatments within 10 to 15 years would maintain the vigor of the shrubs. Leege (1979) described a program of prescribed burning every 10 to 15 years to maintain forage for elk herds (Smith and Fischer, p. 43). Without maintenance, the brush would grow back over time and fuels would build up again.

Consideration of the cumulative impacts of implementing the proposed activities in conjunction with the effects of ongoing and reasonably foreseeable activities determined that the effects of fire would be restored, and fuels activities in treated areas would trend toward Fire Regime Condition Class 1. (Fire/Fuels Specialist's Report, p. FF-21). The Proposed Action would make substantial progress toward the need to reduce potential intensities of wildfire and trend stands away from potential fire behavior that could threaten human life and property in the resource area as described in the Purpose and Need for Action (Fire/Fuels Specialist's Report, page FF-23).

4.C. Impacts to Forest Vegetation

The forest vegetation analysis considered two key indicators (SR-02, page VEG-2): effectiveness of the alternatives was measured through changes in forest composition and forest structure. A balance of these conditions would increase the likelihood of a healthy and resilient forest ecosystem sufficient to meet the multiple resource objectives for the area relating to fire/fuels, wildlife, recreation, and aquatics.

Under the No-Action Alternative, there would be no activities implemented to increase resiliency of forest vegetation, which has been identified as necessary for this area (see Purpose and Need for Action). Forest composition would continue to trend toward the less resilient Douglas-fir and grand fir at lower elevations, with minor components of subalpine fir and mountain hemlock at higher elevations (PF Doc. SR-02, page VEG-12). FVS modeling for lodgepole pine stands with no proposed treatment indicated that the mountain pine beetle hazard rating would remain "high to very high" until after about 50 years, when it would drop drastically as the majority of susceptible trees die (PF Doc. SR-02, p. VEG-12). Until then, high levels of mortality in lodgepole pine stands would increase fuels that could lead to high intensity and high severity wildfire in the urban interface and immediately adjacent areas (PF Doc. SR-02, page VEG-13). This trend would continue until the susceptible trees die (20 to 50 years), after which stands would begin to regenerate naturally to lodgepole pine and/or subalpine fir/mountain hemlock.

The current modeled canopy cover of 45% overall would decline to 43% over the next 100 years (PF Doc. SR-02, p. VEG-16). Many of these stands are unlikely to provide the same mature structures as stands containing large white pine or western larch that were once a component of the Coeur d'Alene River Basin and Placer Resource Area. Although mature/large timber stands may contain large trees and provide some old structural components, openings caused by root diseases and other pathogens and insects may be common. Structures are more likely to be multi-storied and multi-aged over time. This mature/large multi-storied multi-aged timber may be more susceptible to disturbances ranging from fire to insects/diseases and windfall. There would be no change in allocated old growth under the No-Action Alternative.

Forest Composition

Effectiveness of the alternatives was measured through changes in forest cover types (from Douglas-fir, grand fir, or western hemlock to western larch, white pine and ponderosa pine). The health of lodgepole pine was measured through a rating that tracks the risk of mountain pine beetle in the stands over time.

Forest Structure

Effectiveness of the alternatives was measured through changes in structural stages, landscape arrangement, and stand growth.

Without major disturbance, the existing patch sizes and landscape patterns in the future would remain similar to the existing condition. However, it is likely that disturbances that could alter the patch sizes will take place given the current stand conditions. Therefore, under the No-Action Alternative, some changes in structure within the patches/patterns can be expected, but the extent of change is not predictable. Over time, the potential for stand disturbance will increase as the current large patches of multi-storied Douglas-fir/grand fir/lodgepole pine stands are subject to insect, disease and fire disturbances (PF Doc. SR-02, p. VEG-17).

Currently, stand growth is about 36% of the Forest Plan modeled level of approximately 80 cubic feet per acre per year under intensive management (Forest Plan, p. A-6; PF Doc. VEG-26). Over the next 100 years, overall growth at the resource area scale would not improve (PF Doc. SR-02, p. VEG-17).

Under the Proposed Action, commercial thinning/daylighting activities would improve the stand species composition to western larch, a long-lived seral species, on approximately 330 acres. Regeneration and rehabilitation harvest would improve the species composition to white pine and western larch on approximately 110 acres. Overall, long-lived seral species composition would increase by 5 percent, increasing the survivability of trees because they have thicker bark, taller crowns, and higher canopy base height (PF Doc. SR-01, page FF-20). While this change improves the resiliency for the Placer Resource Area, the amount of change is such a small percentage of the Coeur d'Alene River Basin that no change would be reflected at the overall basin scale (PF Doc. SR-02, p. VEG-13).

The Proposed Action would treat about 20 percent of the lodgepole pine in the Placer Resource Area, focusing only on stands with a "high to very high" hazard rating (PF Doc. SR-02, p. VEG-13). In treated lodgepole pine stands, the mountain pine beetle rating would drop from the current "high to very high" hazard condition to a "very low" hazard condition. This trend would continue for a period of 80 to 100 years, until the stands again mature (PF Doc. SR-02, page VEG-13).

Under the Proposed Action, timber harvest would reduce the small/medium structural stage by 4 percent in the Placer Resource Area, leaving about 82 percent of the Placer Resource Area in this stage. These areas would grow into the mature/large class over the next 10 to 20 years and, depending on overall health, may develop the characteristics of late successional structures as they age. The seedling/sapling stage would be increased by 4 percent, bringing the total of this stage up to 18 percent in the Placer Resource Area. The areas converted to the seedling/sapling stage are more likely to provide a long-term improvement in stand and landscape structure and increased resiliency to native change agents (such as insects, pathogens, and fire) due to conversion to long-lived seral species. As currently unmanaged stands age and exhibit less resiliency to insects, disease and fire, the opportunities to achieve structural characteristics without starting over with regeneration would be increasingly limited. There is currently no allocated old growth in the Placer Resource Area (PF Doc. SR-02, Section 2.B); therefore there would be no change in allocated old growth under the Proposed Action Alternative. Because the number of acres of change in structural stages in the Placer Resource Area is such a small percentage of the Coeur d'Alene River Basin, the Proposed Action would not result in a change in structural stages at the overall basin scale (PF Doc. SR-02, p. VEG-17).

Cumulatively, the mosaic of vegetation resulting from proposed and reasonably foreseeable activities would create breaks in vegetative structure that would reduce the potential for high intensity fires. Fuel management activities would extend or reinforce the positive trends of the Proposed Action, including reduced fire risks and a trend toward desired forest composition and structure. Over the next 100 years, stand growth would improve in all treated units. The improvement would be more substantial in regeneration units, where stand growth would improve to above Forest Plan-desired levels (PF Doc. SR-02, page VEG-25).

Reasonably foreseeable activities such as trail reconstruction, weed treatment, and watershed/riparian restoration project have no cumulative effect to vegetative composition, structure, arrangement, or disturbance types at the stand and landscape or larger scales. At the plant and site scales, roads proposed for permanent closure or decommissioning would likely go through a prolonged period of grass, forbs and or shrub dominance, but would eventually provide forest cover. Watershed and riparian restoration can include scattered planting with cedar and other species, which would speed the recovery of desired tree species, increase diversity for wildlife species, and trend the riparian area toward increased resiliency (PF Doc. SR-02, page VEG-25).

4.D. Impacts to TES Plants

Analysis was conducted using sensitive plant surveys, current distribution and condition of sensitive plant populations in habitats similar to those found in the proposed treatment sites, types of proposed treatments, and the likely effects to existing populations and habitat from the proposed activity based on current knowledge and professional judgment (PF Doc. SR-03, p. TES-2).

Under the No-Action Alternative, there would be no direct effects to any Threatened, Endangered, or Sensitive species; any Forest Species of Concern (FSOC); or any Special Status Plant Species (SSPS) because none of the proposed activities would occur (PF Doc. SR-03, p. TES-10). Forest Plan standards and legal mandates would be met. However, indirect effects to Threatened, Sensitive, FSOC, and SSPS plant habitat and populations are likely for certain guilds and species (there are no Endangered plants identified for the Idaho Panhandle National Forests or the Coeur d'Alene Field Office of the BLM). The No-Action Alternative would not implement any management activities to trend the watershed toward the desired condition, identified risks associated with certain roads and road channel crossings would not be addressed and hydrologic conditions would not be improved.

Indirectly, there would be an increased risk to sensitive plants and habitat due to the gradual increase in fuel loads through time with continuing fire suppression. The greater the fuel loading, the greater the risk of a high intensity burn and stand replacing fire, with possible loss of rare plants and habitat. The increase in ignition risk and a resulting fire would also have an array of likely effects for sensitive plant species, ranging from beneficial to intolerant, depending on factors like the intensity of the fire, the species ability to survive the event, and compete in early successional habitat. In stands with declining canopy cover due to mortality from insects and diseases, the likely effects to certain sensitive plant guilds and species present could range from a beneficial response, due to factors like increased levels of light and available moisture, a neutral response, species persist but there is no evident change in population levels, to an intolerant response because of factors like loss of shade and decrease in relative humidity (PF Doc. SR-03, pp. TES-10 through TES-12).

A low severity fire (moderately burned, moderate duration, moderate ground char) that only consumes some of the surface fuels may kill laterally growing rhizomes or roots near the surface, or stem buds that are not well protected. It has little effect on buried plant parts and can stimulate significant amounts of post-fire sprouting. In contrast, a high severity fire (heavily burned, long duration, deep ground char) removes the duff layer and most of the woody debris, particularly rotten material. It can eliminate species with regenerative structures in the duff layer, or at the duff-mineral soil interface, and may lethally heat some plant parts in the upper soil layers, particularly where concentrations of heavy fuels or thick duff layers are consumed (PF Doc. TES-29, p. 20).

Proposed Action Alternative: The following table displays the amount of potential rare plant habitat on National Forest System and BLM lands in the Placer Resource Area, and the amount of potential habitat affected by proposed activities. Consideration of the cumulative effects indicates that implementation of activities on National Forest System lands would contribute insignificant impacts to sensitive plants or habitat, trending watershed and vegetative conditions toward the desired future condition (PF Doc. SR-03, pages TES-16).

Table 8. Potential rare plant habitat in the Placer Resource Area (PRA) affected by proposed activities on National Forest System (NFS) and Bureau of Land Management (BLM) lands.

Rare Plant Guild	Potential habitat in the PRA on NFS	Potential Habitat in the PRA on BLM	Total potential habitat in the PRA on federal lands	Potential Habitat affected in the PRA on NFS	Potential habitat affected in the PRA on BLM	Total habitat affected in the PRA on federal lands
MOIST/WET FOREST Deerfern, Constance's bitter-cress, Henderson's sedge, Moonworts, Idaho barren strawberry	2,344 acres (24%)	722 acres (7%)	3,066 acres (31%)	367 acres (4%)	228 acres (2%)	595 acres (6%)
DRY FOREST Clustered lady's slipper, Bank monkey flower	180 acres (2%)	444 acres (4%)	624 acres (6%)	104 acres (1%)	142 acres (1%)	246 acres (2%)
ALPINE/SUBALPINE Leafless bug-on-a-stick, Iceland moss lichen, Cascade reedgrass, Bourgov's astragalus, California sedge	2,791 acres (28%)	143 acres (1%)	2,934 acres (29%)	596 acres (6%)	106 acres (1%)	702 acres (7%)
GRASSLAND Spalding's catchfly	399 acres (4%)	507 acres (5%)	906 acres (9%)	229 acres (2%)	155 acres (2%)	384 acres (4%)

4.E. Impacts to Noxious Weeds

Analysis of effects to noxious weeds was conducted using results of noxious weed surveys, documented distribution of weed species in habitats similar to those found in the proposed treatment sites, types of proposed treatments and the (low, moderate or high) risk of weed spread and introduction of new weed invaders from the proposed activity based on current knowledge and professional judgment (PF Doc. SR-04, p. NW-2).

Under the No-Action Alternative, the lack of fuels treatment would, over time, further increase the risk of high severity conditions in the event of a wildfire because there are no activities proposed to reduce fuels or increase the amount of long-lived, fire-resistant western larch and fire-dependent white pine. This is a concern to management of noxious weeds because high severity burned areas have more exposed mineral soil, which would be susceptible to weed invasion. Areas where mortality results in substantial canopy loss would be at greater risk of weed spread, particularly in dry habitats that are already in an open to semi-open condition and dominated by grass-forb understories. Stands with higher rates of fuels accumulation would be at increased risk of a severe wildfire, exposure of mineral soils, and increased risk of weed spread (PF Doc. SR-04, pp. NW-4, NW-5).

Direct and indirect effects under the No-Action Alternative would include a natural reduction in forest canopy cover due to forest insect and disease induced mortality. Canopy loss would make conditions in the dry Douglas-fir and western larch cover types more suitable to certain common weed species such as St. Johns wort, thistles, toadflax, and spotted knapweed (PF Doc. SR-04, pp. NW-4, NW-5). Where these species are already established in affected areas, they would likely increase. However, these effects would be limited because of the lack of ground disturbance occurring with this natural event. The direct effect of the loss of canopy and resulting indirect effect of increased light and a warmer, drier micro-environment would be most pronounced on dry, Douglas-fir, western larch habitat types. There would be little direct, indirect, or cumulative effect to moist forest and riparian habitats. In habitats with a developed shrub layer, the shrub cover would increase, limiting the risk of weed encroachment. Douglas-fir cover types with grass/forb understories would be affected to a greater degree by invading weeds. Indirectly, the lack of fuels treatment under the No-Action Alternative would, over time, increase the risk of high severity fire in the event of a wildfire. High severity burned areas have more exposed mineral soil that would be susceptible to weed invasion.

Cumulatively, areas where continued tree mortality results in substantial canopy loss would be at greater risk of weed spread, particularly in dry habitats which are already open to semi-open and dominated by grass-forb understories. Stands with higher rates of fuels accumulation would be at increased risk of a severe wildfire, exposure of mineral soils and increased risk of weed spread. The cumulative effects of the No-Action Alternative are expected to be low.

Under the **Proposed Action Alternative**, most of the harvesting would occur in grand fir/Douglas-fir cover types. This alternative would increase the risk of weed invasion on harvested acres, newly constructed roads, and in burned areas, particularly on the drier cover types. Under the Proposed Action, activities would reduce (but not eliminate) the risk of weed spread by applying specific design features, including roadside pre-treatment, grass seeding and equipment washing (described in Section 3, Part C, and in the Specialist's Report on Noxious Weeds – PF Doc. SR-04). The Forest Service does not have control over activities occurring on private lands; weed introduction and spread is likely occurring. Post-activity monitoring for weeds and weed treatment would occur as funds are available.

Cumulative effects with this alternative would be low to moderate. Weed infestations are already present in the Resource Area on federal and private lands, and county road right-of-ways. Implementation of ongoing and reasonably foreseeable activities on National Forest System lands will, in most cases, have a low level of cumulative impacts on the risk of weed spread, since the Coeur d'Alene River Ranger District is committed to implementing treatment and prevention practices where ground or vegetation disturbance and/or canopy removal would occur. The District is working on an ongoing basis with the State of Idaho, county officials, and members of the public to control noxious weeds within the Inland Empire Cooperative Weed Management Area (PF Doc. SR-04, p. NW-6), which includes the Placer Resource Area.

4.F. Impacts to Aquatics

The main concerns related to aquatic resources are effects to drinking water, stream channels, and fish habitat. Environmental consequences to these resources were measured through changes in the magnitude, intensity or duration of water yield, peak flows, and sediment yield (PF Doc. SR-05, pages AQ-23 through AQ-25).

Under the No-Action Alternative, there would be no aquatic restoration activities such as removing or upgrading at-risk road crossings, or armoring/repairing culverts that chronically produce sediment, so the net associated risk of sediment delivery would remain at the current level. Drainage crossings currently at risk would likely fail in the event of a large stand-replacing fire followed by a high intensity rain or rain-on-snow event. The risk of wide-spread, high severity fire would be greater when compared to the proposed action because a fire of this type could damage soils, increase surface run-off, and increase sediment into Placer Creek and its tributaries. This would have a detrimental effect on water quality (impacting beneficial uses), altering stream channel morphology, impacting fish habitat, and disrupting efficiency of the water system that supplies drinking water to the city of Wallace. The additional sediment pulse could result in adverse effects to fish populations and/or fish habitat. Fish populations could experience a short-term decline due to mortality resulting from such a wide-spread, high severity fire. Placer Creek has a poor ability for fish populations to re-colonize due to fragmented habitat (specifically, culverts that block fish movement), and a dam near Wallace that disconnects Placer Creek with the South Fork Coeur d'Alene River fish populations (PF Doc. SR-05, page AQ-25).

Under the Proposed Action, treatment activities would have little to no risk of measurable effects to the magnitude, intensity and duration of peak flows and sediment yields. The risk of stream channel changes would be low to none (PF Doc. SR-05, page AQ-28). The proposed road reconstruction would occur on a ridge-top road far from streams; therefore the activity would create sediment during reconstruction but, due to its' location, routing of sediment to any stream course would be unlikely and a very low risk. Salmonid redds, aquatic life, and associated habitat would not be affected by the anticipated changes in conditions (PF Doc. SR-05, p. AQ-27).

Cumulatively, the ongoing and reasonably foreseeable activities would not have any effect on sediment yield, water yield, peak flows, stream channel morphology, or fisheries populations or habitat; therefore this project would not impair beneficial uses within the Placer Resource Area or downstream in the South Fork Coeur d'Alene River (PF Doc. SR-05, p. AQ-35, AQ-36)

Table 9. Comparison of Changes to Peak Flow and Water Yield in the Placer Resource Area, by alternative.

Indicator	% increase over existing under the No-Action Alternative	% increase over existing under the Proposed Action Alternative	Difference in % Increase Between the No-Action and Proposed Action Alternatives
<p><u>WATER YIELD</u></p> <p>Effects of commercial harvest and resulting canopy openings on % increase in water yield.</p>	<p>Lower Placer 0%</p> <p>West Fork Placer 0%</p> <p>Middle Placer 0%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 0%</p> <p>Entire Placer 0%</p> <p>Range = 0 to 0%</p> <p>Mean = 0%</p>	<p>Lower Placer 2%</p> <p>West Fork Placer 3%</p> <p>Middle Placer 1%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 3%</p> <p>Entire Placer 2%</p> <p>Range = 0 to 3%</p> <p>Mean = 1.8%</p>	<p>Lower Placer 2%</p> <p>West Fork Placer 3%</p> <p>Middle Placer 1%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 3%</p> <p>Entire Placer 2%</p> <p>Range = 0 to 3%</p> <p>Mean = 1.8%</p>
<p><u>PEAK FLOW</u></p> <p>Effects of commercial harvest and resulting canopy openings on % increases in peak flows.</p>	<p>Lower Placer 0%</p> <p>West Fork Placer 0%</p> <p>Middle Placer 0%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 0%</p> <p>Entire Placer 0%</p> <p>Range = 0 to 0%</p> <p>Mean = 0%</p>	<p>Lower Placer 3%</p> <p>West Fork Placer 4%</p> <p>Middle Placer 2%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 4%</p> <p>Entire Placer 3%</p> <p>Range = 0 to 4%</p> <p>Mean = 2.7%</p>	<p>Lower Placer 3%</p> <p>West Fork Placer 4%</p> <p>Middle Placer 2%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 4%</p> <p>Entire Placer 3%</p> <p>Range = 0 to 4%</p> <p>Mean = 2.7%</p>
<p><u>SEDIMENT YIELD</u></p> <p>Effects of commercial harvest and road activity on % increase in sediment yield.</p>	<p>Lower Placer 4%</p> <p>West Fork Placer 6%</p> <p>Middle Placer 0%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 0%</p> <p>Entire Placer 2%</p> <p>Range = 0 to 6%</p> <p>Mean = 1.7%</p>	<p>Lower Placer 4%</p> <p>West Fork Placer 6%</p> <p>Middle Placer 2%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 4%</p> <p>Entire Placer 6%</p> <p>Range = 0 to 6%</p> <p>Mean = 3.7%</p>	<p>Lower Placer 0%</p> <p>West Fork Placer 0%</p> <p>Middle Placer 2%</p> <p>Experimental Draw 0%</p> <p>Upper Placer 4%</p> <p>Entire Placer 4%</p> <p>Range = 0 to 4%</p> <p>Mean = 1.7%</p>

4.G. Impacts to Soils

The IPNF Soil NEPA Analysis Process (Niehoff 2002; PF Doc. SOIL-34) was used to determine whether proposed activities would detrimentally impact or have cumulative effects on soils (PF Doc. SR-06, pp. SOIL-8 through SOIL-10). Direct effects include compaction, severe burning, or displacement on the soil surface, which is the most productive layer and also the easiest to disturb (PF Doc. SR-06, p. SOIL-9). Compaction, displacement and severe burning can affect the soil's physical, chemical and biological properties, which can indirectly affect the growth and health of trees and other plants. Compaction reduces soil permeability and infiltration, which can cause soil erosion. Displacement reduces plant growth where topsoil and organic matter are removed. Severely burned soils can become water repellent, leading to increase erosion and runoff, and/or reduced productivity. Acres of detrimental disturbance were calculated by multiplying the areas of activity disturbance by the disturbance coefficient derived from monitoring reports (PF Doc. SR-06, p. SOIL-9). Indirect effects to soils include the loss of site productivity due to the removal of large woody debris and potassium.

Under the No-Action Alternative, there would be no direct impacts to soils because no new road construction, logging or fuel treatment activities would occur (PF Doc. SR-06, page SOIL-10). Throughout the landscape, tree mortality from insects, diseases and weather events would continue, increasing organic matter. In moist habitat sites the increase in organic matter is beneficial to overall soil productivity. In dry habitat types, increases of organic matter mean an increase in fuel loading, which may result in a high severity fire. In the event of a severe wildfire, there would be a greater loss of the soil's organic matter, nutrient availability, water infiltration, all of which affect the soil's productivity (PF Doc. SR-06, page SOIL-10).

Under the Proposed Action, soil-disturbing activities would not exceed Forest Plan standards (PF Doc. SR-06, pp. SOIL-12, SOIL-13). Minor disturbances would occur on skyline and helicopter-yarded harvest units and where hand line is constructed around specific units. Forest monitoring indicates these activities typically result in minor detrimental effects (USDA 1991; PF Doc. SOIL-40; PF Doc. SR-06, p. SOIL-11). Activity areas that propose tractor yarding, new roads, road reconstruction, and/or new helicopter landings would have the highest probability of detrimental effects to the soil resource. Skyline and helicopter logging systems proposed in conjunction with spring underburning and with no new road construction would have much lower detrimental effects (Niehoff 2002; PF Doc. SOIL-34; PF Doc. SR-06, p. SOIL-11).

To consider the worst-case scenario, the analysis assumed that all proposed harvest treatments would occur during non-winter conditions, when the disturbance potential would be the greatest. Logging in winter would reduce the effects of compaction and soil displacement (Krag 1991, PF Doc. SOIL-36; PF Doc. SR-06, p. SOIL-11). There would be no increase in detrimental impacts from proposed brushfield burning in the Placer Resource Area. There would be a total of approximately 28 acres of disturbance on national forest system lands and 15 acres on BLM lands under the Proposed Action (Tables SOIL-3 and SOIL-4; PF Doc. SR-06). Cumulatively, the percent of activity area disturbance would range from 1 to 16 percent on national forest system lands (with an average of 2.3 percent) and 2 to 13 percent on BLM managed lands (PF Doc. SR-06, p. SOIL-11). In terms of cumulative effects, fuels reduction and stand improvement activities would reduce the effects that a wildfire would have on soils, because there would be a reduction in the surface fuels on treated sites (PF Doc. SR-06, p. SOIL-13).

4.H. Impacts to Wildlife

The analysis of wildlife included effects on twelve species: Canada lynx, gray wolf, black-backed woodpecker, fisher, wolverine, Coeur d'Alene salamander, Townsend's big-eared bat, fringed myotis, pileated woodpecker, pine marten, northern goshawk, and Rocky Mountain elk. The analysis was based on Forest-wide wildlife habitat suitability (HIS) models that used information related to habitat type, size class, past activities, forest type, elevation, basal area, and number of trees above a specific size class (Specialist's Report on Wildlife, p. WL-2). Data used in wildlife habitat suitability models was validated for each species. Conservation Assessments provided management recommendations and guidelines to assist in maintaining suitable habitat. This information, in conjunction with scientific literature, is used to assist in planning and in developing project design features that minimize or avoid effects to wildlife and their habitat (Specialist's Report on Wildlife, p. WL-2 through WL-5).

The analysis revealed that there would be no significant impact to any of the twelve species considered, and there would be no loss of viability to populations or species. The long-term benefits to wildlife species would outweigh the short-term disturbance to species during implementation of project activities. The discussions below identify the species' status and their probability of occurrence in the Placer Resource Area, and provide a synopsis of the direct, indirect and cumulative effects to each wildlife species.

In accordance with the Endangered Species Act of 1973 as amended, regulations in 50 CFR 402, and BLM policy in Manual 6840, BLM will complete the necessary coordination with the US Fish & Wildlife Service for the protection of federally listed Threatened and Endangered species and critical habitat on lands they manage.

The Forest Service is completing the necessary coordination in accordance with the Section 7 Counterpart Regulations (PF Doc. WL-67) that complement the general consultation regulations at 50 CFR 402 by providing an alternative process for completing section 7 consultations for Federal agency projects that support the National Fire Plan.

Canada Lynx: Threatened Species, moderate probability of occurrence

Currently, both National Forest System and BLM lands within the Placer Resource Area provide primarily low quality forage habitat for lynx because the 1910 fire resulted in a forest that is generally in one age group (PF Doc. SR-07, p. WL-15). Young forest stands that provide habitat for lynx prey are non-existent in the St. Joe Divide West Lynx Analysis Unit (LAU) and in the Placer Resource Area. The low quality forage habitat functions primarily as travel habitat for lynx. Only 250 acres of denning habitat are located in the LAU, all within the Placer Resource Area. There have been no recorded observations of lynx in the Placer Resource Area (PF Doc. SR-07, Section 3.C).

Under the No-Action Alternative, there would be no direct or indirect effects because no activities are proposed. When considering cumulative effects, the Placer Resource Area would continue to provide low-quality forage habitat for lynx for the next 50 to 100 years. Snowshoe hare populations (prey for lynx) would remain low. After 50 to 100 years, some low-quality forage stands would have larger-diameter downed wood, providing denning habitat for lynx, and understory regeneration could provide habitat for snowshoe hares. There would be no change in movement corridors for lynx.

The **Proposed Action Alternative** incorporates recommended conservation measures of the "Canada Lynx Conservation Assessment and Strategy" (PF Doc. WL-R80; PF Doc. SR-07, p. WL-13). In developing the Proposed Action, approximately 300 acres of potential treatment areas with slightly older larch stands met some of the criteria for lynx denning habitat, and were therefore dropped from proposed treatment so that they could be managed for lynx habitat (a total of 647 acres in the Placer Resource Area would be managed for lynx denning habitat).

Under the Proposed Action, direct and indirect effects would cause lynx to be displaced from the area over the short term (during activities). Cumulatively, activities on private lands would have little effect upon lynx or its habitat because these lands lie at low elevations within the drainage (PF Doc. SR-07, p. WL-16). Noxious weed treatments along Placer Creek would have no effect to lynx because no habitat would be altered by the treatments. Trail improvements are not expected to affect lynx because the use is already occurring and the habitat quality in that area is low. Proposed commercial thinning would provide a larger diameter larch tree over the long term, which would ultimately improve lynx denning habitat. Openings created by shelterwood harvests would improve lynx forage habitat in 25 to 30 years. Prescribing burning activities would improve forage habitat for snowshoe hare and therefore for lynx.

Effects determination: *The proposed action may affect but would not adversely affect the lynx or its survival.*

A number of species were not analyzed because the species is not likely to occur or habitat does not exist in the analysis area, therefore the species would not be affected by the proposed activities (PF Doc. SR-07). Species not addressed included:

- ◆ Bald eagles
- ◆ Grizzly bears
- ◆ Woodland caribou
- ◆ Flammulated owls
- ◆ Boreal toads
- ◆ Peregrine falcons
- ◆ Common loons
- ◆ Harlequin ducks
- ◆ Northern bog lemmings
- ◆ Black swifts
- ◆ Pygmy nuthatches

Gray Wolf: Endangered Species, high probability of occurrence

Although a transient individual could use the area, there is no known pack activity within the Placer Resource Area. Since the Placer Resource Area is south of Interstate 90, gray wolves in this area are part of an experimental population and do not fall under the Endangered Species Act (PF Doc. SR-07, pp. WL-11-12).

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Over time, vigor of brush fields could be reduced, resulting in lower prey populations for wolves.

Under the Proposed Action, elk habitat effectiveness would return to existing levels after activities are complete, providing a prey base. Therefore, activities would not jeopardize gray wolves or gray wolf populations. Cumulatively, viability of the species would be maintained, since the goal to have 30 breeding pairs well distributed throughout three states for three successive years has been met (PF Doc. SR-07, p. WL-12).

Effects determination: *The proposed action would not jeopardize gray wolves or gray wolf populations.*

Black-backed Woodpecker: Sensitive species, moderate probability of occurrence

Placer Resource Area provides less than optimal black-backed woodpecker habitat, so there would be limited effects upon black-backed woodpecker habitat under either alternative (PF Doc. SR-07, p. WL-18).

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Over the long-term, natural mortality due to insects would result in snag recruitment. Some mature stands would trend toward old growth, while others could deteriorate before meeting old growth criteria. Potential stand-replacing fires would increase forage habitat for about five years. After that time, insects would no longer use the burned snags, and forage value would be greatly reduced.

Under the Proposed Action, prescribed burning activities could result in increased forage opportunities over the short term. Over the long term, activities that promote larch would eventually benefit the black-backed woodpecker. A conservation assessment of black-backed woodpecker found habitat to be well-distributed and abundant across the Forest Service's Northern Region, and concluded that viability for this species will be maintained for the next 100 years (Samson, 2005; PF Doc. WL-67; and PF Doc. SR-07, pp. WL-4, 17, 19).

Effects determination: *The proposed action may impact black-backed woodpecker individuals or habitat, but would not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.*

Fisher: Sensitive species, high probability of occurrence

There is no suitable habitat for fisher in the Placer Resource Area, although there is future (capable) habitat (PF Doc. SR-07, p. WL-20). Of the existing capable habitat, most would provide moderate quality for fishers in 50 years or less. Their presence on the Coeur d'Alene River Ranger District has been confirmed through Idaho Fish & Game.

Under the No-Action Alternative, there would be no short-term effects to fisher habitat because no activities are proposed. For about the next 50 to 100 years, the immature forest would continue to provide less than optimal fisher habitat (until the forest matures). As mortality of trees occurs within these stands, snags and downed wood would increase, improving habitat for fishers. However, potential stand-replacing fires would set back the trend toward late-successional forest, which is preferred fisher habitat (PF Doc. SR-07, p. WL-21).

Under the Proposed Action, individuals would be displaced from activity areas over the short term. For about the next 50 years, the immature forest would continue to provide less than optimal fisher habitat (until the forest matures). Cumulatively, viability would be maintained because 1) there are movement corridors available both inside and out of the analysis area; 2) fisher are not legally subject to trapping in Idaho; 3) snag guidelines would ensure that snag habitat is provided; and 4) allocated old growth would be maintained at 10% or greater across the IPNF (PF Doc. SR-07, p. WL-22).

Effects determination: *The proposed action would impact fisher individuals but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.*

Wolverine: Sensitive species, high probability of occurrence

The Placer Resource Area provides some prey, travel, denning and roadless habitat for wolverines (PF Doc. SR-07, p. WL-24). Maintaining denning habitat is probably the most important factor affecting wolverine in the Placer Resource Area. No denning wolverines have been documented using any part of the Coeur d'Alene River Ranger District.

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Potential stand-replacing fires would increase forage and could result in an increase in prey for the wolverine. However, the fires would also likely decrease cover for wolverines.

Under the Proposed Action, activities follow the management recommendations of the "Habitat Conservation Assessment and Conservation Strategies for Forest Carnivores in Idaho" (PF Doc. WL-R13; PF Doc. SR-07, p. WL-22). Individuals would be displaced from activity areas over the short term. Over the long-term, viability would be maintained because 1) security patches are provided in the Coeur d'Alene Mountains; 2) wolverines are not legally subject to trapping in Idaho; 3) large patches of refugia are available on the nearby St. Joe Ranger District, Lolo and Kootenai National Forests; and 4) the wolverine's prey base would be maintained.

Effects determination: *The proposed action may impact wolverine individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.*

Coeur d'Alene Salamander: Sensitive species, moderate probability of occurrence

There are no known populations of Coeur d'Alene salamanders in the Placer Resource Area, although potential habitat exists along streams, seeps and in wet areas (PF Doc. SR-07, p. WL-27). Any changes in peak flows could have detrimental effects on the salamander by either flooding or drying habitat.

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. The potential for stand-replacing fires would increase, which could reduce habitat for Coeur d'Alene salamander by increasing peak flows.

Under the Proposed Action, individuals may be impacted in activity areas, but no known populations would be affected over the short term. Ongoing and reasonably foreseeable activities on private lands and lands managed by BLM could alter Coeur d'Alene salamander habitat because of potential changes in peak flows. Implementing guidelines and buffers under the Inland Native Fish Strategy would ensure viability of the Coeur d'Alene Salamander (Cassirer et al, 1994; PF Doc. WL-R11; PF Doc. SR-07, p. WL-26).

Effects determination: *The proposed action may impact Coeur d'Alene salamander individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.*

Townsend's Big-eared Bat and Fringed Myotis: Sensitive species, low probability of occurrence

Mining activities in the Placer Resource Area have created bat habitat.

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Over time, potential wildfires would produce smoke at levels that could be fatal for bats that occupy mines (PF Doc. SR-07, p. WL-28).

Under the Proposed Action, individuals or habitat may be impacted in activity areas over the short term, but no known populations would be affected. Cumulatively, retaining snags at levels recommended in the R1 Snag Protocol and design features to protect bats during prescribed burning operations would ensure viability of Townsend's big-eared bats and fringed myotis (PF Doc. SR-07, p. WL-28, 29).

Effects determination: *The proposed action may impact Townsend's big-eared bat individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.*

Pileated Woodpecker: Old-growth management indicator species, high probability of occurrence

There is evidence that pileated woodpeckers use the Placer Resource Area (PF Doc. SR-07, p. WL-30). Although there is no allocated old growth in the resource area, pileated woodpeckers often use ponderosa pine and mixed conifer habitats for nesting and foraging; the latter type of habitat is common throughout the resource area.

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Over time, there would be a continued lack of white pine and larch component in the area. Beetle activity, insects and disease would continue to provide snag recruitment, but the size of snags would not be optimal for the species. Some stands would trend toward a mature forest component over the next 50 years, improving habitat for the species. Potential stand-replacing fires could set back the trend toward suitable habitat for pileated woodpeckers.

Under the Proposed Action, individuals or habitat may be affected by disturbance in activity areas over the short term. Cumulatively, viability would be assured because the recommended level of snags would be maintained in accordance with the R1 Snag Protocol (USDA Forest Service, 2000; PF Doc. WL-R54; PF Doc. SR-07, p. WL-31), and allocated old growth would be maintained at 10 percent or greater across the IPNF. A conservation assessment of pileated woodpecker found that high levels of intermediate-sized trees and increases in post-fire insect outbreaks are providing increased forage for the pileated woodpeckers across the Forest Service's Northern Region. As a result of these and other factors, viability for this species will be maintained for the next 100 years (Samson, 2005; PF Doc. WL-67; and PF Doc. SR-07, pp. WL-4, 30, 32).

Effects determination: *The proposed action may impact pileated woodpecker individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.*

Pine marten: Old-growth management indicator species, high probability of occurrence

None of the stands within the Placer Resource Area currently provide mature forest structure or are allocated as old growth (PF Doc. SR-02, Section 2.B). Immature stands are abundant, and provide low to moderate habitat for pine marten. Their presence on the Coeur d'Alene River Ranger District has been confirmed through Idaho Fish & Game.

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Over time, the immature stands would continue to mature and in 50 years should provide moderate to high quality habitat for the marten. As trees age, they increase in diameter, and forested stands succumb to insects and disease and increase the amount of downed wood on the ground. However, potential stand-replacing fires could set back the trend toward suitable habitat.

Under the Proposed Action, individuals or habitat may be affected in activity areas over the short term. Harvest would slightly reduce the amount of low to moderate quality habitat. Over the long term, these treated acres would eventually provide marten denning and foraging habitat (in about 90 years). Cumulatively, viability would be maintained because proposed activities follow the management recommendations of the "Habitat Conservation Assessment and Conservation Strategies for Forest Carnivores in Idaho" (PF Doc. WL-R13); the recommended level of snags would be consistent with the R1 Snag Protocol, there are movement corridors available that allow for dispersal of the species; and 3) allocated old growth would be maintained at 10% or greater across the IPNF (PF Doc. WL-07, p. WL-35; Witmer et al 1998, PF Doc. WL-R64; USDA 2000, PF Doc. WL-R54; IPNF 1987, PF Doc. WL-30).

Effects determination: *The proposed action may impact pine marten individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.*

Northern goshawk: Old-growth management indicator species, moderate probability of occurrence

The Placer Resource Area provides no suitable goshawk nesting habitat (there is no allocated old growth), and only a small amount (69 acres) of future (capable) nesting habitat (PF Doc. SR-07, p. WL-36). No goshawks have been sighted in the vicinity of the project area. Although calling surveys were conducted in the area in 2003; there was no response by goshawks.

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Over the long term, natural mortality would result in snag and downed log recruitment. Some mature stands would trend toward old growth; however many mature stands would never achieve old growth qualities due to insects, disease, and the risk of fire (Specialist's Report on Forest Vegetation, page VEG-17). The resource area would continue to provide habitat for one nesting pair of goshawks at some point in the next 50 years.

Under the Proposed Action, individuals or habitat may be impacted in activity areas over the short term. Natural mortality would result in snag and downed log recruitment, and some stands would trend toward the mature and old growth structures. Cumulatively, commercial thinning and shelterwood treatments could create stands that could be used by goshawks in the future (in about 50 years). These treatments would trend trees toward a larger diameter and result in the necessary large structure component that is currently absent in the Placer Resource Area. Burning activities would enhance forage habitat for goshawks. Treatment of patches greater than 40 acres in size would provide large patches of interior habitat for nesting in the future (150 years). A conservation assessment of northern goshawk found habitat to be well-distributed and abundant across the Forest Service's Northern Region, and concluded that viability for this species will be maintained for the next 100 years (Samson, 2005; PF Doc. WL-67; and PF Doc. SR-07, pp. WL-4, 35, 38). Viability would be assured because activities would follow the recommendations of "Northern Goshawk in the Southwestern United States" (Reynolds et al., 1992; PF Doc. WL-R46; PF Doc. SSR-07, p. WL-34); the recommended level of snags would be consistent with the R1 Snag Protocol (USDA 2000, PF Doc. WL-R54); and allocated old growth would be maintained at 10 percent or greater across the IPNF (Witmer et al 1998, PF Doc. WL-R64; IPNF 1987, PF Doc. WL-30). The Region 1 viability criteria for goshawk nesting would continue to be met (PF Doc. SR-07, p. WL-37).

Effects determination: *The proposed action may impact goshawk individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.*

Rocky Mountain Elk: Big-game management indicator species, high probability of occurrence

Due to high elevations and deep snows, only a small portion of the area is managed as winter range. There is no high quality elk summer range. Mid-elevation habitat may provide transitional spring range for elk, particularly on BLM-managed lands. Brush fields on south-facing slopes provide forage habitat for big-game.

Under the No-Action Alternative, there would be no short-term effects because no activities are proposed. Over time, there would be a loss of forage habitat as existing immature stands continue to trend toward mature forest structure, and the vigor of brush fields declines. As mature stands decline, there would be a reduction in thermal cover. There would be no improvement in browse habitat. Potential stand-replacing fires could convert cover to forage.

Under the Proposed Action, disturbance during project activities would reduce the elk habitat potential over the short term due to reduced security. Elk habitat potential would return to the existing value after activities are completed. Cumulatively (over the long term), activities would result in an increase in big-game forage (PF Doc. SR-07, pp. WL-41, 42). Treatment of patches greater than 40 acres in size would provide large security patches in the future (50 years or more). Activities would comply with "Guidelines for Evaluating and Managing Summer Elk Habitat in Northern Idaho" (Leege 1984; PF Doc. WL-R74; PF Doc. SR-07, p. WL-39). Elk security would be the same under both the No-Action and Proposed Action Alternatives.

Nongame and Land Bird Habitat

Past fires have decreased the amount of old trees and the associated lack of snag and down woody habitat they provide, greatly reducing habitat for non-game. Some snag habitat is being provided as a result of insects and disease across the resource area, but these are still small-diameter trees. Changes in habitat may benefit one species and at the same time have undesirable effects on other species.

Under the No-Action Alternative, there would be no short-term effects to nongame and land bird habitat because no activities are proposed. Over time, the current trend in vegetation would continue, with below-historic levels of white pine and western larch and the wildlife species associated with them. Some mature stands would trend toward mature and old forest; however many stands would never achieve old growth qualities due to insects, disease, and fire.

Under the Proposed Action, activities could result in some reduction in snags but there would still be sufficient levels to meet R-1 protocol levels. Brush field burning would decrease cover and shelter for nongame species for 5 to 10 years. Prescribed burns could create some additional snags now and into the future. Cumulatively, restoration of fire as an ecological process in the Placer Resource Area would result in a trend toward historical conditions, and provide additional biodiversity with maintenance of brush fields on south-facing slopes (PF Doc. SR-07, p. WL-44). Over the long term, restoration of white pine and western larch could benefit nongame and land bird species.

4.I. Impacts to Recreation

Existing recreation developments and opportunities would not be affected over the short term under either alternative. However, the continued risk of severe wildfire under the No-Action Alternative does pose a long-term risk to the quality of recreation opportunities in the area, since burned trees and possible erosion caused by vegetation burnout could damage area trails, visuals, and sense of enjoyment (SR-08, page REC-3).

Under the Proposed Action, there would be only temporary impacts to recreation (smoke, dust and noise could impact recreation experiences in the area). Over the long term, the intensity of potential wildfires would be reduced following treatment. Prescribed burning of a brush field within a portion of the Big Creek Roadless Area is consistent with management direction for the area, and would not involve ground-disturbing vehicles or activities. Integrity and manageability of the roadless area would be unchanged (SR-08, page REC-3).

4.J. Impacts to Scenery

Under the No-Action Alternative, there would be no immediate effects to scenery in the vicinity of the Placer Resource Area, because no activities are proposed. However, over the long term, increased vulnerability to severe wildfire could bring detrimental changes to the scenic conditions, such as blackened landscape and loss of vegetation (SR-09; page SCE-2).

Under the Proposed Action, none of the proposed management units would be visible from any high sensitivity locations in the Silver Valley or along Interstate 90. However, several harvest and prescribed burn units would be visible from Road 456 and segments of trails in the area. Effects to scenic resources would be short term; as seasons change, vigorous growth of grasses and new brush would be supported in the treatment areas (SR-09, pages SCE-2, SCE-3).

PART 5. ADMINISTRATIVE REVIEW PROCESS

The HFRA provides a pre-decisional administrative review process (referred to as the “objection” process) pursuant to 36 CFR 218, subpart A. It is not subject to notice, comment and appeal provisions pursuant to 36 CFR 215 (see 36 CFR 218.3).

This environmental assessment is being provided to other agencies, adjacent landowners, and any person or organization that has indicated an interest in the proposal (please refer to Appendix C for a list of agencies and persons consulted). Legal notice has been published in the Spokesman-Review newspaper announcing availability of the document and describing the objection process. Objections will be accepted only from those who have previously submitted written comments specific to the proposed project during scoping or other opportunity for public comment (36 CFR 218.6). The publication date of the legal notice is the exclusive means for calculating the time to file an objection (36 CFR 218.9(a)). Those wishing to object should not rely upon dates or timeframe information provided by any other source. At a minimum, an objection must include the following (36 CFR 218.7(d)):

1. *The objector’s name and address, with a telephone number if available;*
2. *A signature or other verification of authorship upon request (a scanned signature for Email may be filed with the objection);*
3. *When multiple names are listed on the objection, identification of the lead objector (verification of the identity of the lead objector will be provided upon request);*
4. *The name of the proposed authorized hazardous fuel reduction project, the name and title of the Responsible Official, and the name(s) of the National Forest(s) and/or Ranger District(s) on which the proposed authorized hazardous fuel reduction project will be implemented; and*
5. *Provide sufficient narrative description of those aspects of the project that are objected to, to identify specific issues related to the proposed project and to suggest remedies that resolve the objection (36 CFR 218.7(b)).*

Incorporation of documents by reference will not be allowed in the objection (36 CFR 218.7(c)).

The Forest Service is the lead agency for this project, but the project interdisciplinary team worked closely with their counterparts at the Bureau of Land Management (BLM) to develop the Proposed Action and ensure a thorough analysis of effects. Separate decisions will be issued regarding activities on National Forest System lands and those on BLM lands. The Responsible Official for this proposal is Forest Supervisor Ranotta K. McNair. An objection, including any attachments, must be filed in writing (regular mail, fax, Email, hand-delivery, express delivery, or messenger service) with the Reviewing Officer within 30 days of the date of publication of the legal notice (36 CFR 218.9(a)). The Reviewing Officer for this project is Abigail R. Kimbell, Northern Regional Forester. Objections may be submitted to her by mail at: USDA Forest Service, Northern Region, P.O. Box 7669, Missoula, MT 59807; by fax at (406) 329-3411; or by E-mail at appeals-northern-regional-office@fs.fed.us. The acceptable formats for submitting an electronic objection are: MS Word, Word Perfect, or RTF. Please type “Placer Resource Area Objection” in the e-mail subject line. Hand-delivered objections will be accepted at the Regional Forester’s Office, 200 E. Broadway, Missoula, MT, between the hours of 8 a.m. and 4:30 p.m. Monday through Friday. All objections will be open to public inspection during the objection process (36 CFR 218.7(a)).

APPENDIX A

HEALTHY FORESTS RESTORATION ACT AUTHORIZATION

Background

About 190 million acres of Federal forest and rangeland in the lower forty-eight states face high risk of large-scale insect or disease epidemics and catastrophic fire due to deteriorating ecosystem health and drought (The Healthy Forest Initiative and Healthy Forest Restoration Act Interim Field Guide, p. 2, USDA Forest Service, February 2004; PF Doc. CR-023). While the increased risk of catastrophic wildland fire is often blamed on long-term drought or expansion of the wildland urban interface in the Western United States, the underlying cause is the buildup of forest fuel and changes in vegetation composition over the last century. Passed in December 2003, the Healthy Forest Restoration Act (HFRA) is intended to reduce delays and remove statutory barriers for projects that reduce hazardous fuel and improve forest health and vigor on lands managed by the USDA Forest Service and the USDI Bureau of Land Management. These lands are at risk of wildland fire; have experienced wind throw, blow down, or ice-storm damage; are currently experiencing disease or insect epidemics; or are at imminent risk of such epidemics because of conditions on adjacent land (HFI/HFRA Interim Field Guide, p.7; PF Doc. CR-023). Other provisions of the HFRA are designed to address forest and rangeland health on private lands.

Collaborative Requirements

Section 104(e) of the HFRA requires agencies to provide notice of the project and conduct a public meeting when preparing authorized hazardous fuel-reduction projects. Section 104(f) encourages meaningful public participation during preparation of such projects. Collaboration with communities and the public is also the cornerstone of *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan* (May 2002).

A collaborative process was used in developing the Placer Resource Area proposal and involved the Bureau of Land Management, State of Idaho (Department of Lands), Shoshone County Fire Chiefs, and Shoshone County Commissioners (collectively referred to as the Shoshone County Fire Mitigation Working Group), the East Shoshone County Water District, and Idaho Department of Environmental Quality, and interested individuals and organizations.

Collaboration efforts have also provided opportunities for other members of the public to participate in the project. On March 4, 2004, a public meeting was held at the Elks Lodge in Wallace to provide information and answer questions regarding proposed activities in the Placer Resource Area. In addition to members of the public, representatives from the Idaho Panhandle National Forests, Shoshone County Fire Mitigation Working Group, Idaho DEQ and East Shoshone County Water District attended. Please refer to Appendix C for additional information regarding collaboration, public involvement, and a list of agencies and persons consulted.

Analysis Requirements

The Council on Environmental Quality provided new guidance for the preparation of environmental assessments for fuel reduction and fire-adapted ecosystem restoration projects. They recommended that the EA address four elements (HFI/HFRA Interim Field Guide, p. 9; CR-023). This EA includes all four identified elements: The need for the proposed activities (Part 2); description of alternatives (Part 3); description of the environmental impacts (Part 4); and a list of the agencies and persons consulted (Appendix C). CEQ's HFRA guidance is provided on their internet website:

ceq.eh.doe.gov/nepa/regs/guidance_for_environmental_assessments.pdf

The activities proposed in the Placer Resource Area are appropriate and meet the definition of “authorized” under the Healthy Forests Restoration Act as defined in the 2004 Healthy Forests Initiative and Healthy Forests Restoration Act Interim Field Guide (pp. 11-14, 27-29; PF Doc. CR-021) and discussed below.

The proposed action is outside designated wilderness

There are no lands in or adjacent to the Placer Resource Area designated as wilderness

The Placer Resource Area is less than one-half mile from the community of Wallace as well as adjacent to a number of rural residents in the Placer Creek Watershed. The land south of Wallace to the three-mile buffer perimeter is a checker-board of ownerships including the US Forest Service, the BLM, the state of Idaho, and private owners. Public access is provided on Placer Creek Road 456. The Shoshone County Wildland Urban Interface Fire Mitigation Plan (Project File Doc. CR-020) states, “Various forest health conditions and use patterns have united to create a moderate to high fire danger in this drainage. Concerns in this area include what appears to be evidence of a wind downburst that recently ripped off treetops in one subdrainage, and insect and disease problems scattered through the valley...Forests in this area bear the scars of past fires with the surrounding forests dominated by Douglas-fir, ponderosa pine, western larch, grand fir, and other species. The slopes are predominately south facing from Placer Creek Road 456. This area was at moderate to high risk for possible wildfire ignition and spread because of the forest fuels, the southerly aspect, the potential for lightning strikes, and the potential for ignition from human causes. These factors are coupled with the juxtaposition of this area to the communities along the eastern side of the I-90 corridor that lie in the direction of the likely spread of a fire in this valley,” (Shoshone County Fire Mitigation Plan, p. 79).

The project’s objective is to protect communities and watersheds by treating hazardous fuels.

The County Fire Mitigation Plan also states, “While our recommendations for specific communities and neighborhoods will reduce the risk of casualty loss, it must be combined with aggressive, active, forest management activities in the forests that surround these communities to have a substantial impact. Specifically, historic data indicates that fires in this region have spread in a northeasterly direction from their point of ignition. Therefore, the forests southwest of each community for a distance of 5 to 10 miles should be targeted initially to reduce the potential of a fire spreading with full force into populated places,” (page 85; PF Doc. CR-020).

The Placer Resource Area is located within the Placer Creek watershed. Placer Creek is the municipal water supply for the communities of Wallace, Silverton, and Woodland Park, and areas in between. Beneficial uses include spawning and rearing habitat, cold-water biota, primary and secondary contact recreation, drinking water, and agriculture water supply. The Shoshone Fire County Mitigation Plan states, “Beyond the surface water points exist watersheds that are of highest risk to damage in the event of a wildfire. A large, severe fire could have major adverse impacts to the water quality in these watersheds, and render the water undrinkable for a period of time. Active management aimed at reducing the potential severity of a fire (taking the fire out of the crowns) could serve as a measure of protection for these watersheds. These treatments could also be placed on the landscape in such a manner to retard the spread of a large fire coming out of the St. Joe River Valley. It is the strong recommendation of this analysis team that the major forestland managers in Shoshone County (US Forest Service, Bureau of Land Management, Idaho Department of Lands) implement aggressive forest management activities in the watersheds they manage that supply domestic water to the communities of this region. These watersheds represent community sustainability.” (p. 86; PF Doc. CR-020)

The proposed action is the result of a collaborative effort.

The Placer Resource Area project involves several interagency cooperators, including participants from the Bureau of Land Management, State of Idaho, Shoshone County Fire Chiefs, and Shoshone County Commissioners (collectively referred to as the Shoshone County Interagency Fire Planners), as well as the East Shoshone County Water District and Idaho Department of Environmental Quality.

Collaborative efforts have also involved interested individuals and organizations, including a public meeting held in Wallace, Idaho. Further discussion of the collaborate efforts is provided in Appendix C of this environmental assessment.

The project is located on National Forest System and BLM-managed lands.

An estimated 68 percent of lands within the project area boundary are National Forest System lands managed by the Coeur d’Alene River Ranger District of the Idaho Panhandle National Forests (IPNF). The Bureau of Land Management (BLM) manages approximately 18 percent of lands within the boundary, and the remaining 14 percent are privately owned lands (p. EA-1). All of the proposed activities are located on federal lands (either National Forest System or BLM lands).

The Placer Resource Area is less than one-half mile from the community of Wallace and residents in Placer Creek drainage (the BLM boundary is less than 250 yards from Wallace). The community has adopted the Shoshone County Fire Mitigation Plan (pp. 78-84, PF Doc. CR-020). All proposed activities are within the Wildland Urban Interface Area. Approximately 80 percent of the Placer Resource Area is in Condition Class 2; with 20 percent (the dry habitat types) in Condition Class 3 (PF Doc. SR-01, page FF-6). The Proposed Action implements the recommendations made in the Shoshone County Fire Mitigation Plan.

The project area is within the wildland urban interface, Condition Class 2 in Fire Regime III and Condition Class 3 in Fire Regime I.

Wildland Urban Interface

The line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels...

(USDI and USDA 2002, PF Doc. REF-2)

An area within or adjacent to an at-risk community that is identified in recommendations to the Secretary in a community wildfire protection plan...

(Healthy Forests Restoration Act, Public Law 108-148, Sec. 101[16]; PF Doc. CR-024)

Fire Regime Condition Classes

(Interagency FRCC Guide Book, 2005; PF Doc. FF-52)

Condition Class 1: Low departure from the natural regime (within the natural/historic range of variability)

Condition Class 2: Moderate departure from the natural regime (outside the natural/historic range of variability)

Condition Class 3: High departure from the natural regime (outside the natural/historic range of variability)

The project is consistent with old-growth and large-tree retention requirements.

Activities under the Proposed Action will fully maintain the structure and composition of old growth stands according to the pre-fire suppression old growth conditions characteristic of the forest type, taking into account the contribution of the stands to landscape fire adaptation and watershed health, and retaining the large trees contributing to old growth structure (HFRA, P.L. 148, Sec. 102[e][3][2]). Allocated old growth is a subset of the mature/large structural stage. The Placer Resource Area is located in a portion of Old Growth Management Unit (OGMU) 119; there are no mature/large or old growth components in the Placer Resource Area (p. VEG-18, PF Doc. SR-02). A detailed review of the old growth in OGMU 119 occurred with this analysis. Forest Plan old growth standards and definitions were used; validation included recent field exams, field reviews and 2004 photo interpretation. No harvest is proposed in allocated old growth. Vegetation treatments focus primarily on small-diameter trees, thinning, creating a strategic fuel break, and prescribed fire. Activities are proposed in the seedling/sapling/nonforest and the small/medium structural stages. These treatments have been designed to focus treatment on areas with high current mortality and risk and trend stands and landscapes toward more resilient patterns and compositions in the face of future drought, fire, or wind events within and immediately around the wildland urban interface.

APPENDIX B

PAST, ONGOING AND REASONABLY FORESEEABLE ACTIVITIES

Introduction

In *Lands Council v. Powell*, the U.S. Court of Appeals for the 9th Circuit held that, under the circumstances presented in the case, proper cumulative impact analysis required some cataloging of past projects and their effect on the current project area. Furthermore, such cataloging should provide sufficient detail to allow for analysis of the differences between prior projects and proposed projects, which could provide the information necessary to consider alternatives that might have less impact on the environment. Within the EA we have provided information of relevant past, present and reasonably foreseeable projects/activities that have occurred, are occurring, or are proposed to occur within each of the resource cumulative effects areas examined in this analysis (EA Appendix B). A discussion of the effects of these past, ongoing, and reasonably foreseeable activities has been provided to promote an informed assessment of environmental considerations and aide in assessing whether one form or another of harvest would assist in meeting the project's purpose and need for action with minimal environmental harm.

The Council on Environmental Quality (CEQ), whose responsibility it is to coordinate federal environmental efforts and work closely with agencies and other White House offices in the development of environmental policies and initiatives, provided guidance to federal agencies on the consideration of past actions in cumulative effects analysis (CEQ Memorandum to the Heads of Federal Agencies regarding Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005; PF Doc. CR-026). CEQ stated that "the environmental analysis required under NEPA is forward looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that the review informs agency decisionmaking regarding the proposed action," (CEQ memo, p. 1) They further state, "Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historic details of individual past actions" (CEQ memo p. 2). Cumulative impact is defined in CEQ's NEPA regulations as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions..." (40 CFR 1508.7). CEQ has interpreted this regulation as referring only to the cumulative impact of the direct and indirect effects of the proposed action and its alternatives when added to the aggregate effects of past, present, and reasonably foreseeable future actions (CEQ memo p. 2).

With respect to past actions, during the scoping process and subsequent preparation of the EA, the Forest Service determined what information regarding past actions was useful and relevant to the analysis of cumulative effects. While CEQ found that cataloging past actions and specific information about the direct and indirect effects of a past project's design and implementation could in some contexts be useful to predict the cumulative effects of the proposal, the regulations do not require the Forest Service to catalog or exhaustively list and analyze all individual past actions (CEQ memo p. 3).

The EA has provided a description of known past activities and their effects; however due to the marked difference between past and current land management practices and policies, this analysis did not further aide in assessing whether one form or another of the proposed activities would assist in meeting the project's purpose and need for action with minimal environmental harm. The evolution that has occurred in land management practices (specifically related to roads and timber harvest) is the result of science and our ongoing monitoring actions.

On the IPNFs, early to mid-20th century **road construction activities** focused construction mainly through river valleys, riparian areas, floodplains, and adjacent hillsides. The roads efficiently provided access but decreased the land's effectiveness as wildlife habitat and constricted stream channels, providing a new avenue for erosion and discharge of sediment into streams. Roads on national forest lands often were simply an expansion of existing trails and paths that provided access so that they would accommodate newer equipment and current land uses. In some situations, roads were developed on abandoned railroad beds. In both cases, the location and design were predetermined from the previous use and era. As time progressed, roads were "designed" and located to achieve their primary purpose, which was to provide access and haul product at a minimal cost. In the decades following World War II (1950s -'70s), the road network was rapidly expanded to support the domestic need for lumber in housing construction.

Over the last twenty years, both road design and location have evolved as necessary tools to not only provide efficient access; but also to protect the valuable watershed resources they encroached upon. Forest Service Best Management Practices (FSH 2509.22 Soil and Water Conservation Practices Handbook) have been incorporated into road construction/reconstruction activities on the forest. Road surfacing (gravel, etc.) was incorporated to not only provide better trafficability; but also to prevent and control erosion from the road surface. Road controls are now being incorporated into designs that reduce the erosive flows in ditches by providing frequent cross-drains to relieve ditch flows, avoid water movement down the road by dispersing the drainage quickly by crowning or outsloping the road surface; stabilize ditches by lining; dispersing drainage water that often carries sediment onto stable, forested slopes before ditches discharge into waterways; and allow new and existing stream crossings to safely pass extreme events (such as a 100-year flood event).

Special construction techniques and designs have been utilized (i.e., full- or partial-benching of roads) to avoid unstable side casting of waste materials; windrowing clearing slash to prevent sediment delivery to streams from construction activities themselves as well as from erosion of road fills and treads that are not yet protected with erosion control vegetation. Some roads now are designed to take advantage of the non-uniformities of the slopes they cross by “rolling grades” and grade breaks to prevent the potential for accumulations of water or excessive ditchflows that have destabilized the road bed or cause surface erosion in the past. Designers and planners develop road networks that avoid highly erosive or unstable slopes utilizing the *land system inventory*, hydrologists, soil scientists, and geotechnical engineers.

Road crossings are being located at more stable sites and crossing designs are now considering water quality and fish passage as primary design criteria, rather than criteria that just account for costs and traffic efficiency. Roads are being located well away from streams and their riparian areas where ever practicable; and the number of crossing sites is being minimized. These features are in stark contrast to past road locations that sometimes resulted in chronic sources of sediments, extended exposure of streams to direct sunlight resulting in temperature elevations, and nearly permanent reductions of the replacement sources of the structural components of streams and aquatic cover, riparian deadfall.

In the past, when a road’s utility ended, the road was simply abandoned. These abandoned roads have been a substantial water quality and slope stability issue as they have deteriorated, especially without any maintenance. Current practice is to restore key abandoned or no longer useful roads to a “hydrologically neutral” condition where its remnants are self-maintaining and are no longer disturbing slope stability or the movement of slope water, either on or below the soil surface or the natural functions and adjustments of streams, wetlands, and other water bodies.

Impacts to forest water and soil resources from logging practices and road activities have also been reduced over the past 20 years with the introduction of Best Management Practices (BMPs) and Inland Native Fish Strategy (INFISH) management direction. Based on research studies, current BMPs and INFISH Riparian Habitat Conservation Areas (RHCA) can reduce sediment yields compared with historical practices (Lee et al 1997, p. 1346, PF Doc. DN-R71; USDA 1995; PF Doc. CR-003).

In 1972, Section 208 of the Clean Water Act Amendments established the regulatory framework for non-point source pollution control through use of BMPs. BMPs are defined in Idaho as a practice or combination of practices determined to be the most effective and practicable means of preventing or reducing the amount of pollution generated by non-point sources (IDAPA 20.02.01). BMP monitoring is annually conducted by the forest to validate the implementation and effectiveness of BMPs associated with land management activities. Monitoring results are used to adapt future management actions where improvements in meeting water quality objectives are indicated. Forest monitoring of BMPs indicates that in most cases they continue to function as expected and are meeting their intent (IPNF 2002, 2003; PF Doc. CR-018 and CR-022).

At the time the IPNF Forest Plan was written (circa 1987), the emphasis was on developing a commodity production strategy while minimizing impacts to watersheds and aquatic resources, including fish. The strategy for watershed management was constructed in the Forest Plan as a “maintenance” objective. In some situations, thresholds, or “minimum impact” standards defined the criteria for maintenance. To ensure that watersheds and aquatic resources were maintained during forest management activities, BMPs were applied. Despite the existing forest plan standards and BMPs, the condition of fish habitat on the forest was declining, primarily due to timber harvest and road building activities (IPNF 1992).

In 1995, the Forest Plan was amended to include INFISH management direction (USDA 1995; PF Doc. CR-003), which gave greater protection to aquatic resources, especially riparian-dependent systems. The management direction provided by the INFISH amendment is designed to protect and maintain the structure and function of riparian and aquatic systems. INFISH contains goals for healthy, functioning watersheds, riparian areas, and associated fish habitats; Riparian Management Objectives (RMOs), and performance-based standards and guidelines for land management activities (i.e., timber, roads, grazing, recreation, minerals, fire/fuels, lands, riparian area management, watershed restoration, fisheries and wildlife restoration). Instead of allowing some “acceptable” level of effects on riparian and aquatic systems, INFISH aims to protect aquatic resources from detrimental effects. INFISH gives riparian-dependent resources priority over other resources in the Riparian Habitat Conservation Areas (RHCAs), so that while RHCAs are not “lock out” zones, activities that occur in them must either benefit riparian and aquatic resources or at least “not slow the rate of recovery below the near natural rate of recovery if no additional human caused disturbance was placed on the system” (USDA 1995; PF Doc. CR-003). Incorporation of the INFISH management direction into the Forest Plan has led to improvement in the condition of aquatic resources by offering greater protections to the critical riparian areas. In addition, INFISH allows for and encourages watershed restoration, which has occurred over the last several years across the IPNF. For example, over 1,300 miles of roads have been decommissioned on the IPNF from 1991-2003 (IPNF 2003; PF Doc. CR-022).

As described in Section 3.C (Table 2), the Selected Alternative includes temporary road construction (0.8 miles on a ridgetop), road reconstruction (12.3 miles), and road reconditioning (7.3 miles) in the Placer Resource Area. Specific BMPs will be followed during implementation of all project activities, as will standards and guidelines of the Inland Native Fish Strategy (Section 3.C.3 “Features”). Monitoring will occur to ensure BMP effectiveness and compliance with the Inland Native Fish Strategy (Section 3.C.5).

Harvest methods and removal of timber products from the national forest has changed substantially over time. Early harvest methods (1950s, '60, and '70) focused primarily on financial objectives of providing low cost wood products. Harvest placement often occurred in the highest volume, easily accessible stands. Timber harvest often occurred within riparian areas and adjacent to streams. Most of the harvest prescriptions were primarily designed to produce healthy young stands with shorter rotation ages.

Modern timber harvest prescriptions and design emphasizes desired conditions of the forest after the harvest. This usually results in the retention of various amounts of trees in a post-harvest stand, addressing objectives that may include wildlife habitat, watershed conditions, hazardous fuels, visual quality, soil productivity, forest health and others. On sites determined suitable for timber production, timber harvest may also produce timber products on a regulated basis while compatible with these other resource objectives and values. Some examples where timber production and resource objectives can be achieved simultaneously are:

- *Reducing tree densities to decrease bark beetle hazard, thereby prolonging the development of the forest and maintaining tree cover;*
- *Managing tree canopies to limit fire spread from the forest floor to the tree crowns;*
- *Developing flammulated owl habitat in ponderosa pine forest through removal of smaller stems crowding larger trees, thereby providing more room to grow for the remaining trees, and open stand conditions favored by the owl;*
- *Designing harvest patterns across the landscape to facilitate wildlife movement, such as providing corridors and preserving travel routes for ungulates. Also, using harvest prescriptions and landscape patterns as part of a wildfire hazard reduction strategy;*
- *Increasing the amount of native western white pine, western larch and ponderosa pine, which generally are insect and disease resilient and are long-lived, as well as increasing western red cedar in valley bottoms, where it historically was more abundant than today;*
- *Using variable retention harvests to meet visual management objectives.*

Other elements of modern harvest prescriptions that address specific resource objectives include retention of snags for cavity nesters, retention of down wood for soil nutrition and wildlife habitat, maintaining sediment filtering vegetation near riparian areas, and maintaining vegetation diversity through hardwood retention and protection of rare plants.

Increased environmental awareness has also led to improvements in logging systems that we use to remove trees from the forest. Early harvests emphasized cheap, labor intensive logging methods, such as railroad, horse, short-distance jammer systems, and tractor logging. Logging systems were selected primarily by the least expensive method to transport the trees from the forest to the mill. This sometimes involved harvesting on steep slopes, creating excessive soil disturbance and increasing the risk of erosion. Streams were sometimes used as a method to transport logs from the harvest site, causing impacts to the aquatic system and adjacent riparian habitat. Road systems were sometimes dense (10 miles of road per square mile of land area) to facilitate rapid and inexpensive removals, in some cases compromising water quality.

Today's logging systems recognize and reduce the threat of environment harm in a number of ways. Tractor logging generally occurs on slopes 35 percent or less, and is limited to designated locations, reducing soil impacts. Skyline and other cable yarding systems are used on steeper slopes, greatly reducing the amount of soil disturbance. Increasingly, helicopter logging is used, which extends yarding distances and thereby reduces road densities. In the Placer Resource Area, 18 percent of the logging will use helicopter yarding, 65 percent will use skyline and other cable yarding, and 17 percent will use tractor yarding (Section 3.C.1, Table 2). A suite of best management practices and forest plan standards and guidelines aids in the development of the least impactful design possible. Monitoring during and after the sale is completed provides a valuable feedback loop that quickly identifies and corrects variances should they occur.

The forest ceased regeneration harvest of allocated old growth stands a number of years ago. Presently, our focus is on maintaining the old growth stands that we have and allocating additional stands for future old growth as they mature. On drier sites, restoration of old growth may include various mixes of prescribed fire, and thinning to restore historic more open old growth stand structures and reduce risk of stand replacing fire. Planting of shade-intolerant, fire-adapted species may also be done if these are in short supply. On these dry sites, our objective is to restore and sustain the old growth by retaining the large old trees, preserving the old growth characteristics, and restoring historic old growth structures and processes (IPNF 2003; PF Doc. CR-022).

In the Placer Resource Area, fire-resilient species such as ponderosa pine and western larch will be the highest priority for protection. Activities under the Selected Alternative are consistent with NFMA requirements and Forest Plan standards for vegetation management.

For the above stated reasons, changes in road construction/reconstruction and maintenance practices; implementation of watershed Best Management Practices and management direction under the Inland Native Fish Strategy; and changes in harvest practices and objectives; we believe that an individual analysis of past projects cannot be clearly compared to analysis of the proposed action. However, the incremental effects of the Proposed Action (when added to the effects of the past, present and reasonably foreseeable actions) are displayed, and provide a complete assessment of cumulative effects.

Past Activities in the Placer Resource Area

The analysis of existing conditions in Placer Resource Area included both natural events and management-related activities. Natural events include disturbances such as fire, insects, and disease. For a detailed discussion of these disturbances, please refer to the Specialist's Report on Forest Vegetation. This discussion includes past activities on National Forest, Bureau of Land Management, and privately owned lands in the cumulative effects analysis area for the Placer project. The scope, timing, and analysis impacts of each activity are described in the following table, with additional information provided in the EA, specialists reports and the project files as noted. Past activities on National Forest System lands in the Placer Resource Area were queried from the District's Timber Stand Management Record System (TSMRS) database and checked against timber maps, aerial photographs, and ground surveys (PF Doc. FF-23, FF-36, FF-37, VEG-2, VEG-3, VEG-4, VEG-44). The timber stand management resource system (TSMRS) database provided some information about management and harvest from 1960 to present. Although some harvest did occur prior to 1960 (after the 1910 fire), the harvest records available prior to 1960 do not have site specific information related to those activities and could not be included (PF Doc. VEG-14).

Timing and type of timber harvest on other ownerships in the Placer Resource Area were estimated using past aerial photographs and personal observations by Forest Service personnel. The degree of regeneration and amount of ground cover in the harvested units were estimated from observable evidence in aerial photographs. Ground scars seen in the photographs were also used to determine harvest methods on private lands. For example, skid trail scars could be observed in the photographs to help determine if a particular

area was tractor logged, and skyline corridors were observed to help determine that a unit might have been skyline logged. No other information exists or is available regarding past activities.

Table B-1. Past management activities in the Placer Resource Area.

Type of Activity	Project Name	Time-frame	Location	Scope
BLM Brushfield burning	Cranky Gulch	1998, 2004	T47N, R4E (Sections 3 and 4)	140 acres burned in 2004 in Cranky Gulch, 147 acres burned in 1998 on east side of Placer.
FS Prescribed burning	Upper Placer	1970's – 1990's	T47N, R5E (Sections 7, 8, 18); T47N, R4E (Sections 12, 13)	193 acres of ecoburning in brushfields in 1998; 1 acre of burning handpiles in 1983; 50 acres of broadcast burning in 1982; 15 acres of wildlife habitat burning in 1981; 10 acres of burning handpiles in 1981; and 61 acres of broadcast burning in 1979. Hand piling was used with the Slate Creek Timber Sale.
Timber harvest	None	1910-1929	Lower riparian areas	Approximately 2,540 acres of salvage in the 1910 burn areas estimated from historical reports.
Timber Harvest	Slate Creek	1977-1979	Along the 935 road in Sections 13 & 18.	323 acres of single tree removal (just over 1 mbf per acre removed). Built 0.3 mile of new road.
Timber harvest private	None	1990, 1999	Sections 3, 11, T47N, R4E, Section 33, T48N, R4E	19 acres seedtree, 56 acres shelterwood, 22 acres thinning
Tree planting	None	1910's-1920's	Placer Creek drainage	2,000 acres between 1913 and 1933
Mining	None	1890's-1990's	Predominantly in lower riparian areas throughout the analysis area	Hard rock mining occurred between 1890 and 1920 with no development of ore milling sites. Bulldozer prospecting occurred between 1940's and 1960's. The Vienna Claim was reopened in the mid 1990's but never developed. Approximately 23 known adits. No placer mining occurred.
Road building	None		on NFS, BLM & private lands throughout the analysis area (outside of roadless)	County road 456 to Dry Creek and up to Slate Saddle was the original freight road to Avery and completed in 1905. The majority of other roads were built for mining exploration.
Fire suppression	None	1910's present	Placer Resource Area	Lightning or man-caused fires were initial attacked and suppressed as soon as possible following detection.
Shoshone County Fire mitigation	None	2003-2004	Section 34, Wallace	Structure protection on 5.5 acres (7 property owners) in 2003, 11 acres (45 property owners) in 2004

Effects to Resources from Past Activities

The level of effects of each type of activity varied due to location and implementation standards that were in place at the time. The following describes the effects each type of activity had on key resources. It is important to remember that the design and implementation of management activities is quite different today than in the past, especially in terms of timber harvest and road construction.

The harvest proposed under the Placer EA is very different from the past salvage and overstory removal harvest that has occurred on NFS lands in this drainage. The proposed harvest is designed to retain the longer-lived seral species (white pine and western larch) on site that has better resistance to both insect and disease problems as well as fires. The harvest is also regenerating lodgepole pine, which is at an age where insects will attack the stands and lead to increased fuels and fire hazard.

The majority of existing roads in Placer were constructed well before 1970, prior to adoption of the Idaho Forest Practices Act, which required the use of Best Management Practices (BMPs). The new road construction proposed under the Placer EA would be temporary, high on the ridges, and well away from perennial streams. These roads would also be laid back to their natural slope contour after use

1. Prescribed Burning on BLM & NFS Lands (617 total acres; see Table B-1)

Effects on Vegetation: These burns had little effect on timbered stands: The burns on BLM were light patchy burns that set back shrubs. NFS burns were more consistent across the area, set back shrubs, and set back some natural tree regeneration encroaching in the brushfields. Some planting of seral species was done on NFS lands, but success on these harsher sites was very limited.

Effects on aquatics: There were minimal effects on aquatic resources because the prescribed burning occurred in the spring while soil moisture content was high, keeping the duff layer from burning completely (which could have caused increased erosion).

Effects on soils: There was little effect to soils in the treatment units: Based on implementation and monitoring of similar burning in the past, there is minimal risk to soils when burning is done with soil moisture content above 25 percent; the brush field burning was done in the spring months when moisture content was high.

Effects on wildlife: One of the purposes of these burns is to create better wildlife browse by burning back older, decadent brush and creating more palatable forage for big game species. Wildlife burns, or eco-burns as they are sometimes called are beneficial to many wildlife species for this reason. However, this type of burning does decrease the complexity of vegetation on the forest floor, as well as cover and shelter for some non-game species, forcing them to look for other suitable habitat nearby that was not burned.

Effects on fire/fuels: Prescribed fire in brush fields would temporarily reduce fuel loading from the older decadent brush and replace it with lower, more palatable, finer (higher moisture content) brush. This would result in lower flame lengths and reduced rates of spread should a fire occur in the area and allow for easier fire suppression. It would also create an opportunity for a canopy fire to drop down to a surface fire and allow for direct suppression tactics. Burning of hand piles reduced surface fuel loads, which reduced potential fire intensity.

2. Timber Harvest After the 1910 Fire (2,540 total acres; See Table B-1)

Effects on Vegetation: The salvage was in fire-killed timber, so harvest had little effect on the vegetative development in this area.

Effects on aquatics: The available information is limited, and indicates harvest was done from existing roads in the bottom and up the side drainages primarily with horses. The harvest of fire-killed timber would not cause any reduction in canopy beyond the effects of the fire. Harvest in the riparian areas reduced the availability of large woody debris that helps form pools and aquatic habitat over the long term.

Effects on soils: Post 1910 salvage in the Placer area was done using either horse skidding or cable yarding with no substantial impacts (PF Doc. SR-06, page SOIL-4).

Effects on wildlife: The salvage harvest reduced the available large snags and down wood found especially in the riparian areas.

Effects on fire/fuels: The salvage reduced the available large fuels in a portion of the area; any reburn would have been less severe in the areas harvested. It is likely that some of the salvaged timber (primarily the cedar) would still be contributing to the large fuel load if it had not been removed.

3. Slate Creek Timber Sale (358 total acres; see Table B-1)

Effects on Vegetation: This harvest removed scattered single overstory trees that survived the 1910 fire. Less than 1.1 mbf per acre volume was harvested.

Effects on aquatics: The majority of the harvest was done from existing roads using a single line below and above the road. The single tree harvest did not create openings in the canopy that would increase water yield. A short (.3 mile) ridge top road was constructed; Best Management Practices (BMP's) established in 1970 were followed, limiting the potential for sediment to reach live water.

Effects on soils: There was very limited tractor yarding with this sale due to the majority of steep slopes in the area; single passes were made that resulted in less than 1.5 acres of compaction. The new road caused an irretrievable loss of soil productivity on less than one-half acre.

Effects on wildlife: There was a reduction in structure benefiting several wildlife species with this harvest, as well as the loss of potential snags and snag habitat as these older trees died out.

Effects on fire/fuels: The small amount of timber removed during this harvest would probably not have contributed a significant amount of slash, especially since some handpiling did occur in association with the sale.

Field visits found no evidence of slash remaining from this harvest. Removal of scattered trees that survived the fire could affect future fire severity; i.e. trees that survived the 1910 fire would also be likely to survive future fires. These larger, older trees could have provided a seed source and other benefits of a residual overstory.

4. Timber Harvest on Private Lands (97 total acres; see Table B-1)

Effects on Vegetation: There was no effect to vegetation on National Forest System lands as a result of harvest on private lands.

Effects on aquatics: This harvest has opened the canopy enough to increase peak flows as well as lead to increased sediment to the stream channels. There are no regulations (such as those provided by the Inland Native Fish Strategy) to preclude harvest on private lands adjacent to live streams; however, they must comply with State of Idaho standards for Class I and Class III streams. This may increase stream temperatures, reduce woody debris recruitment, and reduce fisheries habitat in proximity of the harvested areas.

Effects on soils: Activity on lands other than National Forest System lands do not contribute to effects of soils within National Forest System lands.

Effects on wildlife: Because of the effects of the 1910 fire, available habitat on private lands is very similar to the available habitat on NFS and BLM lands. Effects on wildlife are limited due to the small acres on private lands that have had harvest activity. The seedtree and shelterwood created openings beneficial to some big game species such as elk, but cause fragmentation and/or barriers to species that prefer contiguous canopy and cover. Thinning promotes larger diameter trees, which is beneficial to many species including fisher, marten and goshawk.

Effects on fire/fuels: Timber harvest on private lands tends to remove trees of highest economic value and typically removes large fire-resistant seral species. Natural regeneration is relied on to fill created openings, which usually favors shade-tolerant Douglas-fir and grand fir over early seral species such as ponderosa pine and western larch, which are more fire resistant. Logging slash can remain untreated on the site, contributing to higher fire intensities should a wildfire occur.

5. Tree Planting (2,000 total acres; see Table B-1)

Effects on Vegetation: There was a variety of native and non-native species, both seedlings and seed planted, with a variety of success. Of the non-native species, individuals are left, but no stand contingent remains that could be managed. The off-site ponderosa pine has high mortality, with increased fuels on the ground. Some individual native species have survived and are contributing to stand structure and composition along with the natural regeneration.

Effects on aquatics: There were limited effects to aquatic resources from this activity. A primary reason for planting was to regenerate the area quicker than was occurring naturally. Because the planting did not start until three years after the fire, brush, forbes and grasses would have already established themselves in this wet climate to help stabilize areas and reduce erosion into the streams. It's likely the riparian planting would have a long-term beneficial effect by shading streams (previously opened by fire or harvest), thereby resulting in cooler stream temperatures.

Effects on soils: Planting was done by hand crews (foot traffic and no machinery), with no effects to soils.

Effects on wildlife: The planting of non-native material had little benefit beyond cover and structure for small game or non-game species, and the limited success of the plantings would make most of the benefit moot over a short period of time.

Effects on fire/fuels: There were no direct effects in the short term from planting on fire/fuels. However, as the successful tree seedlings grew over time, they would have caused an increase in the ladder and crown fuels on the site. This would have occurred with natural regeneration also. It is unknown if the planting would have resulted in difference effects than natural regeneration alone. Areas that were probably planted with off-site seed sources are now exhibiting substantial mortality, which reduces the canopy fuels and adds to the surface fuels. Due to the small seedlings and seeds planted, even the failures added limited fuels to the landscape.

6. Road Building (See Table B-1)

Effects on Vegetation: There are minimal effects to vegetation with regard to stand species composition or structure due to road building

Effects on aquatics: Segments of the main road near riparian areas in the Placer and Dry Creek drainages were completed in 1895 as a freight road to the St. Joe; most other roads were also built before there were any standards in place. Culverts were undersized to handle high water flows, several culvert outlets have 2-3 foot waterfalls, causing erosion on the fill slopes and fish barriers upstream. The lower end of road #456 constricts the main channel of Placer Creek in several small spots.

Effects on soils: All past roads built for either timber harvest or mining have an irretrievable effect on soil productivity due to compaction and displacement.

Effects on wildlife: Roads dissect wildlife habitat causing fragmentation. They lead to a loss of security during denning/calving season as well as hunting/trapping seasons. Roads themselves can affect movement patterns of some species and have caused direct mortality from vehicle collisions. Several old roads in Placer are designated as motorized trails. Old mining roads that have brushed in and revegetated through the years have little to no impact on wildlife now.

Effects on fire/fuels: Roads provided access and quick response for fire suppression activities.

7. Mining (See Table B-1)

Effects on Vegetation: Past mining would have minimal effect on the vegetation beyond localized harvest to create supports for mine tunnels. This did not contribute to changes in structure or composition overall.

Effects on aquatics: Mineral exploration may have had some localized negative effects at the reach level) to water quality, channel morphology, and fisheries habitat, but no known disturbances are still causing effects to aquatic resources. Effects of bulldozer mining along the north side of Placer Creek along the mid-slopes and upper-slopes of the watershed likely resulted in soil disturbance and local sediment runoff but, because of its location, did not likely reach any water course. The disturbed area has almost completely recovered.

Effects on soils: The mining activities that have taken place included both surface exploration and underground (hardrock) development. Underground work resulted in 17 known waste rock features, of which five are of moderate size. The total area of disturbance associated with the underground work is approximately 10 acres. Surface exploration resulted in approximately 12 miles of dozer prospect trails and associated trenching, affecting approximately three acres within the project area.

Effects on wildlife: Mines have created habitat for bat species in the area. Open adits on private, BLM and NFS lands have provided potential habitat for both the Townsend's Big-eared bat as well as the fringed myotis.

Effects on fire/fuels: There are no known effects on fire/fuels from past mining.

8. Fire Suppression (See Table B-1)

Effects on Vegetation: Stands have become overcrowded and overstocked with shade tolerant species. Root diseases, insect infestations and other diseases are at unnaturally high levels in many stands. Douglas-fir now dominates the drier sites where western larch, white pine and ponderosa pine used to dominate. Root diseases now play a more major role in the successional development of the area due to less long-lived seral species and more shade tolerant species.

Effects on aquatics: There have been no effects due to actual fire suppression activities. However, this has caused a trend toward more shade tolerant species that are more susceptible to insects and disease. Since changes in water yield are associated with vegetative conditions, the existing trend would eventually have an effect on water yield.

Effects on soils: Fire suppression activities have been limited to hand-tools on small Type A fires with insignificant impacts on soils.

Effects on wildlife: Fire suppression has led to a decrease in available habitat for wildlife species that rely on more larch (goshawk, pileated woodpecker) as well as those species such as black-backed woodpecker that thrive on burned areas.

Effects on fire/fuels: The dry habitat types have been altered the most with fire suppression activities and as a whole are in Condition Class 3 now. The moist and subalpine habitats are in Condition Class 2. Fire exclusion is one of the primary factors pushing these ratings due to a departure from natural fire frequency and severity, and from natural vegetation structure and composition.

9. Shoshone County Fire Mitigation (See Table B-1)

Effects on vegetation: There is no effect to National Forest System vegetation due to the removal of brush and non-commercial vegetation on private lands.

Effects on aquatics: There are no changes to the canopy due to these measures and the activity is completed by hand, causing no impacts to aquatic resources.

Effects on soils: Activity on lands other than National Forest System lands do not contribute to effects of soils within National Forest System lands.

Effects on wildlife: These activities occur within 200 feet of structures in and adjacent to the town of Wallace. These areas are not considered suitable wildlife habitat due to the close proximity and frequent use by humans.

Effects on fire/fuels: These activities are consistent with the objectives of the Placer Project and will help protect homes and other resources from damage by uncontrolled wildfire.

Ongoing and Reasonably Foreseeable Activities in the Placer Resource Area

In addition to past activities, the analysis of cumulative effects includes effects of activities that are currently ongoing or have a reasonable chance of occurring in the resource area (that is, the proposed location, timeframe and scope have tentatively been identified). To ensure a comprehensive look at activities, the Idaho Department of Lands was contacted for copies of the 2003-05 notifications of forest practices by those with private lands adjacent to the Placer Resource Area. There were none identified other than those listed in the table below.

Table B-2. Ongoing and Reasonably Foreseeable management activities in the Placer Resource Area.

Type of Activity	Project Name	Time-frame	Location	Scope
Trail re-construction	Pulaski Project	2005	West Fork Placer Creek	2.2 miles of trail relocation and reconstruction
Weed treatment	None	Yearly	Road 456	Shoshone County weed treatment including herbicide spraying along the road.
Forest Plan Amendment	Fry Emergence Amendment	2005	Idaho Panhandle National Forests	Amended the Forest Plan to modify or remove objectives, standards and monitoring requirements pertaining to fry emergence success.
Timber harvest BLM	South Hill project	2006-2007	BLM lands in Placer Creek watershed near Wallace (Section 34)	This proposal is still in the development stages; details of the proposal are not firm.
Fuel break on Road 456	Same	2006+	Within 150 feet either side of Road 456 on private & BLM	Shoshone County Fire Mitigation Plan plans for thinning, pruning and handpiling fuels along the road corridor.
Shoshone County Fire Mitigation	None	2005	Section 34, Wallace	Structure protection on one acre (4 property owners)
Shoshone County Fire Mitigation	King Street Slash Clean-up	2005+	Section 34, Wallace	Piling and burning or chipping of residual harvest slash on a maximum of 20 acres near King Street.
Watershed Restoration	None	2006	Along Placer Creek	Under a Memorandum of Understanding with Shoshone County, water restoration activities will stabilize and revegetate the streambanks at a ford crossing on Placer Creek near Road 985; upgrade the culverts at mile marker 5.1 on Road 456 and at a Flora Gulch crossing; armor the outlets at mile markers 4.4, 8.0 and 8.1 on Road 456; fill slopes will also be stabilized at mile markers 8.0 and 8.1. Additional information is provided in PF Doc. AQ-72, AQ-73, AQ-82, AQ-83)

Effects of Trail Reconstruction: This activity is planned for completion by the end of 2005. There would be no effects on resources listed above beyond a small increase in sediment yield (5%) in conjunction with the other activities occurring in the West Fork Placer Creek.

Effects of weed treatment: This activity would provide a small benefit to native vegetation and reduce the competition from exotic species, especially in the brushfield areas where the exotic species are more prone to occur.

Effects of the Forest Plan Fry Emergence Standard Amendment: On June 2, 2005, the Forest Supervisor for the Idaho Panhandle National Forests signed a Decision Notice and Finding of No Significant Impact that amended the the Forest Plan to modify or remove objectives, standards and monitoring requirements pertaining to fry emergence success (PF Doc. SR-05, p. AQ-37). The amendment represents a programmatic decision and therefore has no direct effects on forest resources. Due to the performance based direction in the Inland Native Fish Strategy and protections provided by other policies, laws and direction, there are no direct, indirect, or cumulative effects to forest resources, including water quality, fish and other aquatic biota, and their habitat as a result of the fry emergence standard amendment.

Effects of timber harvest on BLM: This proposal is in the early stages with no defined activities at this point. It will likely contribute to reducing fuels and the potential for higher intensity and severity fires in the area near Wallace.

Effects of Road 456 Fuelbreak: Construction of this roadside fuel break will help reduce the risks posed to the community and natural resources by an uncontrolled wildfire (PF Doc. SR-01, p. FF-22). Short-term effects would be limited by the application of Best Management Practices and by treating areas almost exclusively outside of Riparian Habitat Conservation Areas (PF Doc. SR-05, pp. AQ-38, AQ-39).

Effects of Shoshone County Fire Mitigation Activities: There is no effect to National Forest System vegetation due to the removal of brush and non-commercial vegetation on private lands. There are no changes to the canopy due to these measures and the activity is completed by hand, causing no impacts to aquatic resources. Activity on lands other than National Forest System lands do not contribute to effects of soils within National Forest System lands. The fire mitigation activities occur within 200 feet of structures in and adjacent to the town of Wallace; areas which are not considered suitable wildlife habitat due to the close proximity and frequent use by humans. These activities are consistent with the objectives of the Placer Project and will help protect homes and other resources from damage by uncontrolled wildfire.

Effects of Watershed Restoration Activities: There long-term benefit of implementing the restoration activities would be a reduction in chronic sediment sources, which would outweigh short-term risks of temporary sediment. Planting, seeding and mulching are effective in reducing potential effects when applied to these types of restoration sites. The reduction of erosion and sediment delivery to Placer Creek would benefit water quality and reduce threats to the drinking water supply of the community of Wallace, Idaho.

APPENDIX C

PUBLIC COLLABORATION & COMMENTS

1. INTRODUCTION

Collaboration with communities and the public is also the cornerstone of *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan* (May 2002). Section 104(e) of the HFRA requires agencies to provide notice of the project and conduct a public meeting when preparing authorized hazardous fuel-reduction projects. Section 104(f) encourages meaningful public participation during preparation of such projects.

A three-tiered collaborative process was used in gathering input and developing the Placer Resource Area proposal. First, as a member of the Idaho State Fire Plan Working Group. This group was initially chartered and described in the Idaho Statewide Implementation Strategy for the National Fire Plan, signed by Idaho's Governor and agency executives July 26, 2002. The group helps to facilitate implementation of the National Fire Plan in Idaho by promoting and ensuring collaboration among participants to the fullest extent possible, and working with County governments (including County Wildland Fire Interagency Groups) to ensure that the Counties' interests and needs are taken into account when funding National Fire Plan projects. Currently, the group consists of representatives from the following agencies and organizations:

- ◆ *Idaho Department of Lands*
- ◆ *Idaho Fire Chiefs Association*
- ◆ *State Fire Marshal*
- ◆ *Idaho Association of Counties*
- ◆ *Bureau of Land Management*
- ◆ *US Forest Service*
- ◆ *Bureau of Indian Affairs (Regional)*
- ◆ *Idaho Department of Commerce*
- ◆ *US Fish & Wildlife Service*
- ◆ *Governor's Office*
- ◆ *Bureau of Disaster Services*
- ◆ *Federal Emergency Management Agency*
- ◆ *Resource Conservation & Development Coordinators*
- ◆ *National Park Service*

Secondly, the proposal was developed through collaboration with the Shoshone County Fire Mitigation Working Group. The goal of the group is to implement "seamless" fire mitigation activities, where treatments are not limited by property boundaries. Instead, through cooperative efforts, hazardous fuel reduction treatments span ownerships based on the most effective treatment area. The Shoshone County Interagency Fire Mitigation Working Group includes the following agencies and organizations:

- ◆ *USDA Forest Service*
- ◆ *Bureau of Land Management*
- ◆ *State of Idaho*
- ◆ *Shoshone County Fire Chiefs*
- ◆ *Shoshone County Commissioners*
- ◆ *Other Interested Parties*

This group convenes monthly to discuss the planning issues associated with hazardous fuels. This collaborative approach has facilitated a pooling of data, research, and support for fuel reduction projects throughout Shoshone County. In addition to other Forest Service employees, Project Fire/Fuels Specialist Sarah Jerome attends the meetings on a regular basis to discuss the Placer proposal and other fuels reduction projects on the Coeur d'Alene River Ranger District.

Third, the proposal was developed at the ground level, through community meetings, field trips, etc. with adjacent landowners, local organizations (including the North Idaho Resource Advisory Committee), and other interested parties. These activities are described in greater detail in Part 2 of this Appendix, and in the Public Involvement Project Files.

Through these three levels of cooperation, the Placer proposal emphasizes a community-based approach to wildland fire and hazardous fuel reduction issues. Specific collaborative and public involvement activities are identified below (in chronological order). Comments received during development of the proposal are attached at the end of this appendix.

2. COLLABORATION & PUBLIC INVOLVEMENT ACTIVITIES

**April 2003
to Present**



The April 14, 2003 issue of the **Forests' Quarterly Schedule of Proposed Actions** (PF Doc. PI-01) provided the first notice to the public that conditions, trends and opportunities in the Placer Resource Area would be assessed and that specific proposals would be developed for analysis under the National Environmental Policy Act (NEPA). Initially identified under the name "Big Placer," the October 3, 2003 issue (PF Doc. PI-03) gave notice that the project area had been revised based on the Big Placer Ecosystem Analysis at the Watershed Scale (EAWS), and was identified as the "Placer EA/DN" proposal. This project has been identified in each subsequent issue of the Quarterly Schedule to date (PF Doc. PI-02, PI-11, PI-32, PI-36, PI-40, PI-43, PI-45, PI-46, and PI-48).

**November
2003**



A **public scoping letter** (PF Doc. PI-05) was mailed to other agencies, adjacent landowners in the Placer Resource Area, those who had indicated an interest in the proposal, and other potentially affected parties. The letter described current land ownership patterns and resource concerns in the Placer Resource Area, introduced the team members who would be conducting the analysis, and asked the public to share their concerns, describe their use of the area, and provide recommendations for management of the area.

**January
2004**



A presentation was made regarding the Placer Resource Area and proposed activities at the **Shoshone County Fire Mitigation Group meeting** on January 28, 2004. In addition to the Fire Mitigation Group members, attendees included representatives from Idaho Department of Environmental Quality, East Shoshone County Water District, Idaho Department of Lands, Bureau of Land Management, Shoshone County Commissioners, and other Forest Service representatives (PF Doc PI-12).

**February
2004**



A meeting of resource agencies was held on February 11, 2004, to discuss aquatic resource concerns in the Placer Resource Area, specifically domestic water supplies, current monitoring, and approaches to insuring water quality is maintained. Attending were representatives from Idaho Department of Environmental Quality, East Shoshone County Water District, Bureau of Land Management, and other area Forest Service representatives (PF Doc PI-14).

On February 26, **a progress report** was sent to those on the project mailing list (PF Doc. PI-20). A key point of the report was notice that the Placer environmental analysis would be conducted under the authority of the Healthy Forests Restoration Act. Ongoing collaborative efforts were briefly described, as were objectives of the project and initial components of the proposed action.

Planning also began for an "open house" meeting to encourage public participation in development of the proposal, and to answer any questions they may have. An invitation to attend the meeting was extended to the interested public through the February Progress Report (PF Doc. PI-20). At the same time, **an electronic mail message** was sent to several agency representatives to invite their participation (PF Doc. PI-15). Recipients included county commissioners, local fire chiefs, the Shoshone County Fire Mitigation Working Group chairperson, and representatives from the Idaho Department of Lands, county disaster services, East Shoshone County Water District, Bureau of Land Management, and other area Forest Service offices. **Flyers** (PF Doc. PI-21) were posted at several locations throughout the Silver Valley and a **news release** (PF Doc. PI-22) was sent to the Shoshone News Press newspaper.

**March
2004**



An open house meeting was held on March 4, 2004 at the Elks Lodge in Wallace, Idaho, to provide information and answer questions regarding proposed activities in the Placer Resource Area (PF Doc. PI-26). In addition to members of the public, attending were representatives from the Idaho Panhandle National Forests, Shoshone County Interagency Fire Planners, Idaho DEQ and East Shoshone County Water District. On March 6, 2004, the *Shoshone News Press* printed **a news article** covering the meeting (PF Doc. PI-27). Following the open house meeting, the Bureau of Land Management highlighted the Placer proposal in the March 26, 2004 issue of their on-line newsletter "Snapshots 2004" (www.fire.blm.gov/snapshots.html; PF Doc. PI-31).

**April
2004**



A progress update on the analysis and documentation of proposed activities in Placer Resource Area was a key topic at the **Shoshone County Fire Planners' meeting** on April 13, 2004 (PF Doc. PI-33).

**October
2004**



In response to a telephone inquiry by the Idaho Conservation League, **a field trip** to the Placer Resource Area was conducted on October 20, 2004 (PF Doc. PI-39).

**November
2004**



On November 24, 2004, **a legal ad** was published in the *Spokesman-Review* newspaper to inform the public of the formal scoping period for the proposed activities in the Placer Resource Area, briefly describe authorization for the project under the HFRA, and to request their input (PF Doc. PI-41).

**August
2005**



On August 22, 2005, **a progress report** was sent to those on the project mailing list (PF Doc. PI-47). A key point of the report was notice that some units could result in openings exceeding 40 acres.

3. COMMENT LETTERS RECEIVED ON THE PLACER RESOURCE AREA PROPOSAL

During scoping, letters were received from the following organizations and agencies:

Federal, State and County Agencies

Rick Collignon (Idaho Parks and Recreation, Dec. 5, 2003; PF Doc. PI-09)

Bill Cowin (Idaho Department of Lands, Feb. 2, 2004; PF Doc. PI-13)

Jeff Legg (Shoshone County Fire Mitigation Program, July 7, 2004, PF Doc. PI-35)

Organizations and Individuals

Mike Mihelich (Kootenai Environmental Alliance; Oct. 30, 2003, Mar. 3 and Dec. 21, 2004; PF Doc. PI-04, PI-23, and PI-42)

Pete Miller (Ecology Center, Nov. 24, 2003, PF Doc. PI-06)

Rein Attemann (The Lands Council, Dec. 1, 2003; PF Doc. PI-08)

John Robison (Idaho Conservation League, March 15, 2004, PF Doc. PI-29)

Each of these provided comments that helped identify issues and define the analysis of effects and proposed treatments. The project interdisciplinary team considered concerns identified through the scoping process and incorporated ideas presented by the public and other agencies into alternative design, as noted in the issue and alternative discussions in Part 3 of the EA.

4. PERSONS CONSULTED ON THE PLACER RESOURCE AREA PROPOSAL

During scoping, information was shared through letters, newsletters and/or telephone conversations with the following interested publics:

Elected Officials

Kootenai County Commissioners
Office of Senator Crapo
Shoshone County Commissioners

Federal, State and County Agencies

Coeur d'Alene Tribe Plummer, Idaho
East Shoshone County Water District..... Wallace, Idaho
Idaho Department of Environmental Quality Coeur d'Alene, Idaho
Idaho Department of Lands..... Coeur d'Alene, Idaho
Idaho Department of Parks and Recreation..... Boise, Idaho
Idaho Fish & Game..... Coeur d'Alene, Idaho
Idaho State Historic Preservation Office Boise, Idaho
Kootenai County Noxious Weed Control..... Coeur d'Alene, Idaho
Lakes Highway District..... Hayden, Idaho
Shoshone County Fire Mitigation Working Group Wallace, Idaho
USDI Bureau of Land Management Coeur d'Alene, Idaho
USDI Fish & Wildlife Service Boise, Idaho and Spokane, Washington

Organizations

Alliance for the Wild Rockies.....	Missoula, Montana
American Wildlands	Bozeman, Montana
Backcountry ATV Association	Athol, Idaho
Blue Ribbon Coalition	Pocatello, Idaho
Brush Bunch.....	Rockford, Washington
CDA Snowmobile Club	Hayden, Idaho
Crown Pacific	Coeur d’Alene, Idaho
Ecology Center.....	Missoula, Montana
Elk Unlimited.....	Osburn, Idaho
Idaho Conservation League	Boise, Idaho
Idaho State Snowmobile Association.....	Dalton Gardens, Idaho
Intermountain Forest Industries Association.....	Coeur d’Alene, Idaho
Kootenai Environmental Alliance	Coeur d’Alene, Idaho
Kootenai County Snow Groomer Board	Coeur d’Alene, Idaho
Louisiana Pacific Corp.	Hayden Lake, Idaho
North Idaho Flycasters	Coeur d’Alene, Idaho
Northwest Access Alliance	Athol, Idaho
Northwest Machines	Coeur d’Alene, Idaho
Northwest Management Inc.....	Hayden, Idaho
Panhandle Trail Riders Association.....	Post Falls, Idaho
Rocky Mountain Elk Foundation	Missoula, Montana
Shoshone Natural Resources Coalition	Wallace, Idaho
Small Loggers Association	Santa, Idaho
Speciality Recreation & Marine	Coeur d’Alene, Idaho
Stimson Lumber	Coeur d’Alene, Idaho
The Lands Council.....	Spokane, Washington
The Pulaski Project.....	Wallace, Idaho
Trout Unlimited.....	Sandpoint, Idaho
Verticle Earth.....	Coeur d’Alene, Idaho

Individuals

Addicks, Dale	Athol, Idaho	Kirby, Tom	Post Falls, Idaho
Beauchene, Al.....	Hayden, Idaho	Livingston, Tony.....	Coeur d’Alene, Idaho
Bentley, John	Post Falls, Idaho	Lorian, Jesse	Rathdrum, Idaho
Brooks, Jim	Coeur d’Alene, Idaho	McLeod, Roderick.....	San Francisco, California
Cantemessa, Jon	Wallace, Idaho	Nichols, John.....	Post Falls, Idaho
Crimmins, Tom.....	Hayden Lake, Idaho	O’Brien, Jack.....	Hayden, Idaho
Dennis, Donn	Dalton Gardens, Idaho	Simonson, Frank Jr.	Spokane, Washington
Dole, Bill	Rathdrum, Idaho	Stambaugh, Mark	Post Falls, Idaho
Gimbel, Ken.....	Coeur d’Alene, Idaho	Standish, Kerry	Rathdrum, Idaho
Grimmett, Scott	Greenacres, Washington	Stout, Ross.....	Kellogg, Idaho
Hathaway, Cecil	Coeur d’Alene, Idaho	Sverdsten, Mark	Cataldo, Idaho
Kelly, Colleen	Tahoe City, California	White, Brian.....	Coeur d’Alene, Idaho
Kerr, Del.....	Coeur d’Alene, Idaho	Williams, Duane	Kingston, Idaho