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Mill Creek–Council Mountain Landscape Restoration Project

FINAL ENVIRONMENTAL IMPACT STATEMENT—SUMMARY



Payette National Forest

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Final Environmental Impact Statement for the
Mill Creek–Council Mountain Landscape Restoration Project
USDA Forest Service, Intermountain Region

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Abstract

This Final Environmental Impact Statement documents the analysis of the Mill Creek–Council Mountain Landscape Restoration Project area on the Council Ranger District of the Payette National Forest. The purpose of the Proposed Action is as follows:

- To restore forest stands toward the Historical Range of Variability as described in Appendix A of the *Payette National Forest Land and Resource Management Plan* and improve habitat for wildlife species such as the white-headed woodpecker
- To contribute to the economic vitality of the communities adjacent to the Payette National Forest
- To reduce wildland fire hazard in forested stands for resource protection and reduce risk in the Wildland-Urban Interface
- To improve recreational opportunities in the Project area

The preferred alternative is Alternative 5. Alternative 5 responds to Forest Plan direction for the East Fork Weiser River, an Aquatic Conservation Strategy high priority watershed. This alternative focuses on improving watershed conditions for bull trout in the upper portion of the East Fork Weiser River subwatershed. It includes re-routing portions of two Forest Service System roads, Dewey Creek Road (Forest Service Road 50487) and Joker Creek Road (Forest Service Road 50486), with additional decommissioning (obliteration) of unauthorized roads and long-term closure of Forest Service System roads. The vegetation treatments are the same as in the Proposed Action.

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INTRODUCTION

This Final Environmental Impact Statement (FEIS) discloses the temporary, short- and long-term, direct, indirect, irretrievable, irreversible, and cumulative environmental impacts of a Proposed Action and alternative actions for the Mill Creek–Council Mountain Landscape Restoration Project (Project) on the Council Ranger District of the Payette National Forest (Forest) in Adams County, Idaho. Proposed restoration activities include timber harvest, biomass harvest, road construction and reconstruction, temporary road construction, road decommissioning (obliteration), culvert removal, thinning of sub-merchantable trees, prescribed fire, and other actions as described in detail in Chapter 2 in the FEIS2003. Proposed recreation improvements include non-motorized trail development, trailhead improvements, and installation of vault toilets. This document has been prepared pursuant to the requirements of the National Environmental Policy Act (NEPA, 40 CFR 1500–1508); National Forest Management Act (NFMA) implementing regulations of 2005, including transition language (36 CFR 219.14); and 2003 *Payette National Forest Land and Resource Management Plan*, as amended (Forest Plan) (USDA Forest Service 2003). Planning for the Project was initiated in summer 2009.

PROPOSED ACTION

A brief overview of the proposed action follows, with a more complete description in Chapter 2 of the FEIS.

Proposed landscape restoration treatments on approximately 25,000 acres would do the following:

- Apply restoration thinning treatments to forest stands followed by prescribed burning
- Apply regeneration treatments where vigorous, fire-resistant trees are absent by creating small (0.1 to 2.0 acre) openings. Forest structure for wildlife habitat would be retained in these openings. Sites would be prepared for planting or natural regeneration using prescribed burning or mechanical means (excavator scalping).
- Move forest stands toward desired conditions as described in the Forest Plan by returning fire to the ecosystem; promoting the development of large-tree forest structures mixed with a mosaic of size classes; and improving stand health, growth, species composition, and resiliency to insects, disease, and fire
- Improve habitat for white-headed woodpeckers and retain habitat for pileated woodpeckers
- Implement actions, such as decommissioning roads (including obliterating by removing compaction and restoring original slope contour) in both uplands and riparian conservation areas (RCAs), and removing or upgrading culverts
- Treat the Wildland-Urban Interface (WUI)
- Thin plantations and remove biomass in the older stands
- Remove biomass in harvest treatments
- Improve recreational opportunities by improving trailheads and constructing a non-motorized trail

PURPOSE AND NEED FOR ACTION

The purpose of the Proposed Action is as follows:

- To restore forest stands toward the historical range of variability (HRV) as described in Appendix A of the Forest Plan (USDA Forest Service 2003) and improve habitat for wildlife species such as the white-headed woodpecker
- To contribute to the economic vitality of the communities adjacent to the Forest
- To reduce wildland fire hazard in forested stands for resource protection and reduce risk in the WUI
- To improve recreational opportunities in the Project area

The need for the Proposed Action is driven by the difference between Forest Plan desired conditions and current conditions. The current conditions are departed from the HRV. The objective is to move towards the desired conditions found in Appendices A, B, and E of the Forest Plan (USDA Forest Service 2003b). This type of restoration is recommended in the IDFG report, *Preserving and Restoring the Old-Growth Ponderosa Pine Ecosystems in Idaho* (Mehl and Haugler 2004) and the *Idaho Statewide Forest Resource Strategy* (Kimball and Stephenson 2010), which includes restoration goals recommended by a broad range of federal, State, and private partners. Within the Project area, there is a need to accomplish the following:

- Manage fuels to protect forest resources, improve firefighter safety, reduce suppression costs and to protect adjacent communities
- Maintain or improve habitat for the white-headed woodpecker to protect its viability
- Provide a source of forest products for utilization to promote community stability
- Improve the proper function of soil, water, riparian, and aquatic (SWRA) resources as described in Appendix B of the Forest Plan (USDA Forest Service 2003), especially in the East Fork of the Weiser River, which is the ACS-priority subwatershed within the Project area

Objectives

The Purpose and Need drives the Proposed Action and is based on Forest Plan goals and objectives. The purpose of the Proposed Action is represented by four project-specific objectives. **Objectives**, as the term is used for this project, are concise, time-specific statements of actions or results designed to help achieve resource-specific goals related to the Purpose and Need. In this document they are tracked by measurements, which are analyzed in Chapter 3 of the FEIS. **Measurements** are resource-specific and are used to compare how each alternative meets the objectives of the project.

Forest Vegetation Resource

Objective: *Move vegetation toward the desired future conditions defined in the Forest Plan, with an emphasis on promoting the development of large tree forest structures, reintroducing fire into the ecosystem, and improving forest health*

Measurement:

- Area (acres) treated affecting tree size class distributions, canopy closure, tree species composition, and spatial patterns

Fire and Fuels

Objective: *To reduce wildland fire hazard in forested stands for resource protection and reduction of risk in the Wildland-Urban Interface (WUI)*

Measurements:

- Fire Return Interval Departure (FRID) Value¹
- Area (acres) of reduced potential fire behavior

Wildlife Resource

Objective: *Improve habitat for Family 1 wildlife species, as represented by the white-headed woodpecker, a Region 4 Sensitive Species (USDA Forest Service 2011a) and Forest Management Indicator Species (MIS), by restoring forest conditions that contribute to source habitat for this species (defined as forests in PVGs 2, 5, and Dry-6 in the Large Tree Size Class and Low—but not less than 25%—Canopy Closure Class). Forested stands providing this source habitat should be restored to conditions within the Historical Range of Variability (HRV).*

Measurements:

- Quantity (acres) and quality (old forest and snags, patch and pattern) of Family 1 white-headed woodpecker habitat restored to conditions within the HRV
- Quality of white-headed woodpecker habitat restored to the HRV as represented by old forest conditions
- Quality of white-headed woodpecker habitat restored to the HRV as represented by snag conditions

Economics

Objective: *To contribute to the economic vitality of the communities adjacent to the Payette National Forest*

Measurement:

- Employment contribution (number of job years)
- Income contribution
- Tons of biomass removed

¹ Fire Return Interval Departure (FRID) is defined as the based on the historic fire return interval (the historical interval between fires, in years) for the vegetation type of interest and the years that have elapsed since the last fire. From maps of where and when past fires have occurred, average fire return intervals for each vegetation type class can be determined. Average fire return intervals combined with years that have elapsed since the last fire can be used to derive an index to calculate the departure of an area from its average fire return interval. (The University of Arizona 2005, Fire Return Interval Departure.)

PUBLIC INVOLVEMENT AND COLLABORATION

The Proposed Action was developed in response to Agency direction and policy, input from interested members of the public, and from recommendations received in comments provided by the Payette Forest Coalition (PFC) to the Forest Supervisor on March 29, 2010. The PFC, formed in June 2009, is a collaborative group convened by the Rocky Mountain Elk Foundation. Its members represent stakeholders from a broad range of outside interests, including the environmental community, timber industry, recreational groups, and State and County government.

The PFC's objective was to collaborate on the design of a project at a landscape scale that would restore forest vegetation conditions, improve habitat for white-headed woodpeckers, reduce wildland fire risk, and improve the economic conditions of the local economy. The recommendations also included watershed and recreation improvements.

On June 1, 2010, a scoping letter and map describing the Project was mailed out (Project Record) to approximately 197 individuals, livestock permittees, and other agencies and groups. In addition, a Notice of Intent to prepare an EIS was published in the June 3, 2010, edition of the Federal Register (Volume 75, Number 106), and a Request for Comments was published in *The Idaho Statesman*, the newspaper of record, on June 4, 2010, and in the *Adams County Record* on June 3, 2010. Sixteen public comments were received during the scoping period.

The Project also appeared in the USDA Forest Service's *Schedule of Proposed Actions* (SOPA) from January 1, 2010, through January 1, 2012. The Forest website also includes a page for Project information.

A Draft Environmental Impact Statement (DEIS) was released for public comment on October 28, 2011. In addition to a Notice of Availability of the DEIS in the Federal Register on October 28, 2011, and a legal notice in *The Idaho Statesman* announcing release of the DEIS on October 28, 2011, a letter announcing the availability of the DEIS, the proposed action, and alternatives and providing an opportunity to comment, was mailed to 232 individuals, agencies, and/or groups on October 24 and 25, 2011. The entire DEIS was delivered to 25 agencies, organizations and individuals in the appropriate format requested. In addition, the entire DEIS was posted on the Forest's website, with paper and electronic (CD) copies available upon request. A total of 44 comment letters on the DEIS were received. Appendix 10 of the FEIS includes these comment letters and the Forest Service responses to them.

Public Meetings

Two public meetings were held in Council, Idaho (May 20 and May 22, 2010) and one in McCall, Idaho (June 28, 2010). In attendance were members of the PFC, a local natural resource committee representative, a livestock permittee, a miner with a claim in the Project area, two timber industry representatives, a road contractor, local residents, an Adams County Commissioner, and a U.S. Senator's representative. The Project concept was introduced and the Forest Service received feedback from those in attendance.

Additionally, the Council Ranger conducted a public field tour of the project on July 22, 2010, with PFC members, two livestock permittees, Rocky Mountain Elk Foundation members, a timber industry representative, an Adams County Commissioner, and local residents. Four stops were visited: one to discuss road decommissioning (obliteration) opportunities, one stand proposed for restoration thinning in an RCA, one stand proposed for restoration thinning with

flagged trees to demonstrate a potential treatment, and one stand where small openings would be created with an adjacent older plantation.

A public meeting was held on December 13, 2010, at the Council Ranger District to discuss draft alternatives and solicit public comments. About 20 people attended, including PFC members, local residents, livestock permittees, an Adams County Commissioner, a U.S. Senator's representative, and timber industry representatives.

Three public meetings were held at the Council Ranger District on November 15 and 16, 2011, to discuss the DEIS and solicit public comments. A presentation on the DEIS was made and District Staff were available to answer questions from those attending. A total of 18 people attended, including PFC members, local residents, livestock permittees, and Commissioners from Adams and Valley counties.

Local News Media

Several articles appeared in the local papers. On December 24, 2009, the *Adams County Record* ran an article discussing the PFC, its goals, and the landscape area it would study. On May 6, 2010, an article was published in the *Adams County Record* describing the project and Proposed Action and alerting the public to the upcoming public meetings. On July 29, 2010, *The Star News* included an article about the public field trip.

Tribal Governments

Letters describing the proposed action and requesting comments and concerns were sent to the Tribal Chairmen of the Nez Perce and Shoshone-Bannock Tribes on June 15, 2009, and the Shoshone-Paiute tribes on June 9, 2009. The Forest Service presented the proposed action to Shoshone-Paiute tribal leaders during Wings and Roots Program meetings (government-to-government consultation) on June 10, 2009; August 10, 2009; and December 9, 2010. The Forest Service presented the proposed action to the Nez Perce tribal staff on May 11, 2010; and to the Shoshone-Bannock tribal leaders on June 22, 2011. Consultation with the tribes was ongoing during the DEIS and FEIS process.

ISSUES AND INDICATORS

Issues were used to develop alternatives and/or appropriate mitigation measures or project design features to address the effects of proposed activities. Each issue is tracked using **indicators**, which compare the effects of the proposed activities by alternative.

Issues were grouped by resource and described using an issue statement, brief background information, and a list of indicators that measure the effects of the proposed activities. Chapter 2 of the FEIS includes a summary that compares the effects of the alternatives on issues and their indicators. Chapter 3 of the FEIS describes the environmental consequences of the alternatives in terms of the issues.

Vegetation Issue #1

Issue Statement: *Restoration treatments in large tree, high and moderate canopy closure stands in moist grand fir habitat types may adversely affect the ecological function of these stands*

Indicator: Area (acres) treated affecting large tree, high and moderate canopy closure stands in moist grand fir habitat types

Wildlife Resources Issue #2

Issue Statement: *Restoration treatments, while a benefit to white-headed woodpeckers, may adversely affect source habitat for other wildlife species that are dependent on mixed conifer forests with multi-layer structural characteristics, such as pileated woodpecker, flammulated owl, elk, and lynx*

Indicator: Quantity (acres) and quality (old forest and snags, patch and pattern) of habitat for wildlife species that require moderate to dense, mixed-conifer forests (pileated woodpecker, flammulated owl, elk, and lynx)

Issue Statement: *Road densities affect wildlife (e.g., elk) security and can lead to the removal of important habitat components (e.g., snags)*

Indicator: Change in security areas (Hillis et al. 1991) and miles of NFS roads and unauthorized roads decommissioned by either physical closure, or by obliteration, and estimated effectiveness of decommissioning and resulting effects to elk and snags and wildlife species of concern

Issue Statement: *Project activities (e.g., logging, prescribed burning) may affect other wildlife species of concern, such as Canada lynx and northern Idaho ground squirrel (NIDGS)*

Indicator: Determination of effects to Canada lynx and NIDGS

Soil, Water, Riparian and Aquatic Resources Issue #3

Issue Statement: *Effects of timber harvest, prescribed fire, road management, and other project-related activities on SWRA resources*

Watershed Resources Indicators

- Percent over natural (% ON) sediment during project implementation and over the long term as modeled by BOISED
- Total road density

- Miles of new permanent road constructed, including roads added to Forest Service System
- Miles of temporary road constructed, including unauthorized road used as temporary road
- Miles of existing road decommissioned (obliterated)

Fish Resources Indicators

- Miles of road decommissioned within riparian conservation areas (RCAs)
- Number of road/stream crossings improved

Soils Resources Indicators

- Levels of Detrimental Soil Disturbance (DD)
- Levels of Total Soil Resource Commitment (TSRC) across the Project area
- Levels of Coarse Woody Debris (CWD)

ALTERNATIVES CONSIDERED IN DETAIL

Alternative 1–No Action

This is the required No Action alternative that provides a baseline against which impacts of the various action alternatives can be measured and compared and represents the existing condition in the Project area. Under Alternative 1, none of the specific management activities proposed in this FEIS would be implemented to accomplish project goals and objectives. Ongoing activities such as recreation, public fuelwood gathering, fire suppression, normal road maintenance, and existing road closures would continue at current levels.

Activities Included in all of the Action Alternatives

Vegetation Treatments

All of the proposed treatments are designed to move forest stands toward the Forest Plan desired conditions for species composition, spatial patterns, tree size class distribution, canopy closure, and snag numbers. The specific project objectives for meeting the Purpose and Need are promoting the development of large tree forest structures, reintroducing fire into the ecosystem, and improving forest health. Treatments would also emphasize retaining legacy trees and promoting old-forest habitat.

Restoration Stand Treatments Harvest and Burn

Restoration stands are stands where most of the trees are vigorous, mature ponderosa pine and Douglas-fir growing at densities higher than desired conditions. While some Restoration stands have homogenous, dense, vigorous serals across the stand, others are a mosaic of different conditions that may include openings where saplings, brush, or grass occur, areas where the crowns of vigorous seral trees are currently separated, and areas where grand fir or low vigor or diseased trees occur. The primary objective in treating Restoration stands is to separate the tree crowns and remove understory trees to restore stands to desired conditions, improve habitat for wildlife species that require low-to-moderate canopy cover, decrease stand densities to provide more resources for tree vigor and growth, and decrease the chance of uncharacteristic wildfire.

Where trees occur in natural clumps, harvest prescriptions would favor that spatial pattern. Small openings (0.1 to 2.0 acres) where natural regeneration could establish would be created where

grand fir or low vigor or diseased trees occur. Stands would be thinned through commercial logging. Harvested trees would be removed with the limbs and tops attached. The limbs and tops would be utilized as biomass where practical. Sapling size trees in the understory would be cut to reduce fuel ladders. Vigorous, sapling-size ponderosa pine, Douglas-fir, and western larch growing in openings would be retained. Following harvest, these stands would be underburned to reduce fuels and patches of low vigor sapling-size trees, seed beds would be exposed for natural regeneration in openings; and aspen, shrubs, and forest floor vegetation would be rejuvenated. Future underburns would be implemented every 10 to 20 years to maintain these stands in a desired condition.

After treatment, these stands would be a mosaic of thinned areas, clumps of trees, and small openings. The average canopy closure in these stands after harvest and underburn operations are completed would be between 25% and 30%. Areas in stands where more existing and created openings occur would have less canopy closure, perhaps as low as 10%. These openings would eventually develop more canopy closure where seedlings could establish and grow.

Reserve Stand Treatments Harvest and Burn

Reserve stands are composed primarily of climax tree species (generally grand fir) and/or trees with low vigor or insect or disease infections. These stands generally have scattered areas that are composed of vigorous, healthy seral species (ponderosa pine, western larch, and Douglas-fir). This mix of conditions varies between stands. Some Reserve stands may include very few vigorous seral trees while others may be composed of patches of vigorous serals that cover 45% of the stand area. These stands are referred to as Reserve stands because most of them would be reserved from treatment. As part of the project design process, areas that were composed primarily of this type of stand were reserved as habitat for species such as pileated woodpeckers and elk. Only about 5% of the Reserve stand acres in the Project area are proposed for treatment under the Proposed Action (Alternative 2). These stands are interspersed with Restoration stands that are also proposed for treatment. Prescriptions for Reserve stands would be developed on an individual stand basis. Stand conditions would determine the size and shape of the openings created. The objective for creating these openings is to re-establish vigorous seral tree species on these sites. In general, vigorous serals and older ponderosa pine and western larch would be retained. Where dense patches of vigorous serals occur, they would be thinned to provide more growing space for retained trees. Older ponderosa pine and western larch would be “day-lighted” (thinned around to reduce fuels and competition for resources). A mosaic of openings would be created where the low vigor and diseased trees and most climax tree species are removed. Untreated areas would be left where needed to ensure created openings do not exceed 2.0 acres. Leaving areas untreated would add to the diversity of these stands and enhance wildlife habitat. Within the created openings, if scattered vigorous seral trees are not present, small clumps of low vigor and/or climax tree species with specific structural components would be retained for wildlife habitat. Scattered clumps of trees with severe dwarf mistletoe infections would also be retained for wildlife habitat. In most cases, a mosaic of openings would be interspersed with thinned areas, patchy areas, and/or untreated areas. Openings would vary in size from 0.1 to 2.0 acres, depending on individual stand conditions. Stand conditions would drive the size, shape, and location of openings. There would not be an objective to create a certain number or a certain size of openings in a stand.

Reforestation with seral tree species would be implemented in Reserve stands where at least 10 acres of openings of about 2 acres in size have been created. This is the minimum number of acres and the minimum size opening that is practical to manage. Site preparation to facilitate

planting or natural seeding would be implemented as needed. Some areas would be suitable for planting or natural seeding with no additional site preparation following logging. Areas with thick sod, dense brush, or heavy slash may require excavator spot-scalping or prescribed fire to ensure planting or natural seeding success. Trees would not be planted where openings are created around quaking aspen patches. In these areas, heavy equipment or prescribed fire may be used to stimulate aspen regeneration. Other created openings could be maintained as openings where such management would enhance habitat for specific wildlife species. Removing limbs and tops of cut trees and biomass utilization would be determined on a stand-by-stand basis. This material may be needed for a site preparation burn.

Required cable corridors in skyline harvest units would reduce flexibility for leaving patches and clumps of trees. The mosaic pattern in these units would be designed to accommodate this harvest system.

After completing harvest and site preparation treatments, the average canopy closure in these stands would be below 25%. Canopy closure in the created openings would be around 10%. Canopy closure in the thinned areas would average 25%; canopy closure could be over 40% in untreated areas.

Open Seral Burn Only Treatments

These stands are similar to the Restoration stands described above. The difference is that these stands have been thinned or underburned in the past and the overstory trees are at the appropriate density; therefore, the overstory trees do not need to be thinned. Open Seral Burn Only stands would be underburned to reduce fuels; thin patches of sapling size trees; expose seed beds for natural regeneration in openings; and rejuvenate aspen, brush, and forest floor vegetation. Future underburns may be implemented every 10 to 20 years to maintain these stands in an open, low-canopy cover condition. Minimal handcrew work would be required to reduce fuels prior to implementing these underburns.

After treatment these stands would appear more open because most of the understory trees and brush would be consumed by fire. Up to 10% of the overstory trees could be killed as well. The current canopy closure in 93% of these stands is between 40% and 69%. The canopy closure would be reduced to 25% to 35% in these stands. About 4% of these stands currently have high canopy closure (over 70%). Canopy closure in these stands would be reduced to between 40% and 69%. The remaining stands currently have less than 40% canopy closure. Canopy closure in these stands would average 25%.

Restoration Burn Only Stand Treatments

These stands are identical to the Restoration stands described above. The difference is that these stands would not have road access for commercial logging operations. The objective in underburning these stands is to reduce the ladder fuels and ground fuels to make these stands less susceptible to stand replacing wildfire. Underburning would also thin patches of sapling size trees, expose seed beds for natural regeneration in openings, and rejuvenate aspen, brush, and forest floor vegetation. Underburns may be implemented every 10 to 20 years in the future to maintain these stands in an open, lower density condition. Most stands with Restoration Stand conditions that would not have road access were included in this treatment category.

These stands would require varying degrees of treatment prior to underburning. Some of the more open stands may require only minimal handcrew work to reduce fuel ladders. Some may need handcrew work to cut and pile sapling size trees. Denser stands may require a combination

of handcrew work and machines (excavators or masticators) to reduce fuels sufficiently to allow prescribed fire to be implemented. No burning preparation work other than fireline construction would occur in the Council Mountain Inventoried Roadless Area (IRA).

After treatment, these stands would appear more open because most of the understory trees and brush would be consumed by fire. Up to 10% of the overstory trees could be killed as well. The current canopy closure in 93% of these stands is between 40% and 69%. The canopy closure would be reduced to between 25% and 35% in these stands. About 36% of these stands currently have high canopy closure (over 70%). Canopy closure in these stands would be reduced to between 40% and 69%. The remaining stands currently have less than 40% canopy closure. Canopy closure in these stands would average 25%.

Reserve Burn Only Stand Treatments

These stand treatments are identical to the Reserve stand treatments described above, except these stands do not have road access for commercial logging operations. Reserve type stands were included in this treatment based on their location with respect to other treatment units. Stands that are intermingled with Restoration stand treatments or other underburn treatments were generally included. As with the other burn only treatments described above, these stands outside of the Council Mountain IRA would require varying degrees of treatment prior to being underburned. Underburning these stands would reduce ladder and ground fuels to make these stands less susceptible to stand-replacing wildfire. Underburning would also thin patches of sapling size trees; expose seed beds for natural regeneration in openings; and rejuvenate aspen, brush, and forest floor vegetation. These stands would be assessed following burning to determine if fire-caused mortality was great enough to require tree planting to restock these sites. Because Reserve Burn Only stands are in less vigorous condition and composed of more thin-barked, less fire-resistant tree species, mortality would likely be higher than in the Restoration Burn Only stand treatments.

After treatment, these stands would appear more open because most of the understory trees and brush would be consumed by fire. Up to 30% of the overstory trees could be killed as well. The canopy closure in 77% of these stands is between 40% and 69%. The canopy closure would be reduced to between 25% and 35% in these stands. About 22% of these stands have high canopy closure (over 70%). Canopy closure in these stands would be reduced to between 40% and 69%. The remaining stands (approximately 1%) have less than 40% canopy closure. Canopy closure in these stands would be reduced to 25%.

Traditional Precommercial Thinning Treatments

These treatments are planned in plantations that are 20–30 years old. The objective of traditional precommercial thinning treatments is to reduce densities to favor more vigorous trees. The cut trees would be lopped and scattered with the expectation that fuel loads would be high for only a few years until the lopped material deteriorated. Irregular spacing and the creation of clumps would be favored to enhance wildlife habitat where practical. Overstory trees infected with dwarf mistletoe would be girdled to prevent spreading the infection.

After treatment, these stands would appear more open. Canopy closure is currently moderate and would be reduced to low (25% to 35%) after treatment.

Older Plantation Precommercial Thinning Treatments with Potential Biomass Removal

These treatments are planned in plantations that are 30–50 years old. These stands are composed of trees that have an average diameter at breast height (DBH) of 8–10 inches. Where these stands occur on gentle slopes suitable for feller bunchers and grapple skidders, the cut trees would be removed from the stands and utilized for biomass where practical. Ground skidding would occur on about 1,837 acres. Where these stands occur on steeper slopes or in RCAs, the cut trees would be lopped and scattered with the expectation that fuel loads would be high for only a few years until the lopped material deteriorated. Underburning would be implemented to reduce densities where assessments determine that fuel loads would be too high if the cut trees were lopped and scattered in stands on steeper slopes and on the outer edges of RCAs (where approved by the hydrologist or fisheries biologist and outside of critical bull trout habitat). The objective of this treatment is to reduce densities and favor more vigorous trees. Irregular spacing and the creation of clumps would be favored to enhance wildlife habitat where practical. Overstory trees infected with dwarf mistletoe would be girdled to prevent spreading the infection.

After treatment, these stands would appear more open. Canopy closure in these stands is currently moderate and would be reduced to low canopy closure (between 25% and 35%) after treatment.

Prescribed Burning in Grass, Brush, Aspen Stands, and Scattered Timber

These prescribed fire treatments would be implemented in conjunction with underburn operations described above. Forested and non-forested areas occur in mosaics across the landscape. Prescribed fire would be used to reduce fuel loads and rejuvenate the vegetation in these areas. The aspen stands in the Project area are in particular need of rejuvenation and regeneration. Coniferous trees have encroached on aspen stands due to the lack of frequent low-intensity fire. In the past, frequent fire killed encroaching conifers and induced aspen root sprouting. After treatment, these areas would appear more open.

Wildland-Urban Interface Treatment—Shaded Fuelbreak

A shaded fuelbreak would be created in the WUI (a 0.5-mile strip where the Project area is adjacent to private land) on approximately 140 acres to facilitate prescribed burning of the adjacent stands and reduce wildfire risk to private lands located in or adjacent to the WUI. This treatment would involve piling and burning ladder fuels (excavator or hand piles) or using a masticator to reduce fuel loading. The width of the fuelbreak would range from no fuelbreak needed to up to 500 feet wide, depending on fuel type, site slope, and the risk level associated with protecting improvements. This would occur in the Restoration, Reserve and Open Seral stands that would not be treated with harvest or burning.

Riparian Conservation Area Treatments

RCA treatments would be considered where the outer portion of the RCA is characterized by upland vegetation identical or very similar to the adjacent stand outside the RCA. Treatment objectives would be based on desired future conditions as defined in Appendix A of the Forest Plan (USDA Forest Service 2003) for that PVG. Input on treatment design would be given by the district hydrologist or fish biologist in order to ensure that all riparian functions were maintained or improved, as required by Forest Plan standard SWST01 (USDA Forest Service 2003).

See Appendix 6, “Riparian Conservation Area Thinning Guidelines,” of the FEIS for more detailed information on proposed harvest guidelines for work in RCAs. The RCA width selection will be verified on-site prior to harvest and potentially affected intermittent streams will be surveyed for fish presence.

Harvest Systems

Harvest systems would include tractor, off-road jammer, cable, skyline, and helicopter. Helicopter harvesting would be included in Alternative 3 only. Ground-based systems would be used on slopes up to 45% and would include wheeled or tracked equipment. An off-road jammer or tractor winch system would be used on slopes over 35% in ground-based harvest units. Cable systems would be used for short, steep slopes below roads. Skyline systems would be used for longer slopes below roads. See Appendix 1 of the FEIS for a list of treatments and harvest systems by harvest unit.

Transportation Management

Unauthorized Roads

Unauthorized roads in the Project area were evaluated based on field and/or GIS data for the need to add to the Forest Service (FS) System, convert to a trail, provide dispersed recreational opportunities, no treatment (deferred for future NEPA analysis), or decommission (obliterate). Unauthorized roads were also evaluated for use as temporary roads that would be decommissioned (obliterated) following use. There are unauthorized roads not addressed with this project and subsequent projects may address these in the future.

Addition of Unauthorized Roads to the Forest Service System for Administrative Use

The Transportation Analysis Process (TAP) prepared for the Project area included a recommendation to add 14.7 miles of unauthorized roads to the FS System (the action alternatives do not include all those recommended in the TAP). These roads generally have a road prism or portion of road prism in place and are overgrown from years of natural establishment and would require road construction to bring them to Forest Service specifications. Construction could include re-establishing the road prism, blading the surface, installing or re-installing culverts for drainage, improving ditches, and incorporating other road maintenance activities. Once utilized for treatment, the roads would be put into a Maintenance Level 1 closure (see definition in Glossary).

Road-to-Trail Conversion

One unauthorized road in the Shingle Flat area is being proposed as a Forest Service System trail. This would be a 0.4-mile-long, non-motorized trail. This trail would connect to the newly proposed trail (see the Recreation section for the new trail proposal). This road-to-trail conversion is the same in all of the action alternatives.

Temporary Roads

There are two categories of planned temporary roads: newly constructed and currently unauthorized roads that would be utilized and obliterated following treatments. In addition to the planned temporary roads, short sections of temporary road identified during implementation would be constructed to access landings. All temporary roads would be obliterated following use.

Road Decommissioning (Obliteration) for Soil and Watershed Mitigation and Improvement

Unauthorized roads that are either known to resource specialists as high-priority candidates for obliteration due to their location (e.g., located within an RCA or known to be impeding watershed function) or were field surveyed due to their proximity to streams or stream crossings and found to be inhibiting proper stream or watershed function will be decommissioned (obliterated). Decommissioning (obliteration) would restore natural hydrologic function and improve soil productivity in these areas. Adaptations to this treatment would be made on a site-specific basis, for example to accommodate permitted access or if a portion of a road did not, based on the professional evaluation of the watershed staff, require treatment.

Road Decommissioning (Obliteration) with Grazing Permittee Coordination

Upon completion, unauthorized roads identified for decommissioning that were also recognized during scoping as needed for administration of grazing permits (i.e., as stock driveways or access to range improvements like bull trout enclosure fences) would be treated so as to allow passage of cattle and provide for other necessary grazing permit activities and would not be designed for motorized access. The maximum restoration of soil-hydrologic function would be achieved while providing access to grazing permittees as well as a barrier to other unauthorized use. This would result in decompaction of most of the road surface and a remnant path wide enough for livestock passage and grazing permit activities. These roads are exceptions to the description of road treatments above; they would be closed to public use and be incorporated into the grazing Annual Operating Instructions (AOIs) as authorized infrastructure for use by the permittee only. These actions are common to all alternatives for roads symbolized as “Decommission with Permittee Coordination” on the action alternative maps. Implementation would be coordinated with the input of the district hydrologist and/or fish biologist, district range specialist and affected permittee.

Road Decommissioning (Obliteration) for Wildlife Security Improvement

Unauthorized roads known to resource specialists as high-priority candidates to increase the value of the wildlife security in blocks of habitat would be decommissioned (obliterated).

Improvement of Closures for Wildlife Security

Six closed or seasonally closed FS System roads totaling 7.2 miles have known existing ineffective closures. In Alternatives 2–4, the closures on these roads would be improved to ensure effective closure through the use of gates or other barriers. In Alternative 5, one of the roads would be decommissioned and five roads, totaling 5.0 miles, would have the closures improved. Closed FS System roads used for treatment would also receive effective closures.

Long-term Closure of Roads for Soil and Watershed Mitigation and Improvement

FS System roads that were either known to resource specialists as high-priority candidates for long-term closure due to their location (e.g., located within an RCA or known to be contributing to sediment delivery in streams) or were field surveyed due to their proximity to streams or stream crossings and found to be inhibiting proper stream or watershed function would be put into long-term closure. To improve the condition of these roads, work may include decompacting, establishing vegetation, installing cross-ditches, and removing culverts at stream crossings.

Culvert Upgrades

Culverts that restrict proper hydrologic function and passage of fish and other aquatic organisms would be replaced in order of priority in Alternatives 2–4:

- FS System Road 50906 at Upper East Fork Weiser River—one culvert
- FS System Road 50486 at lower Joker Creek—one culvert
- FS System Road 50199 at upper Cottonwood Creek—one culvert
- FS System Road 50486 at upper Joker Creek—one culvert
- FS System Road 50199 at lower Cottonwood Creek—one culvert

Alternative 5 would be identical to the culvert upgrades list above except it would remove the Joker Creek culvert listed in the second bullet above through road decommissioning, and replace a culvert in Dewey Creek on the Old Cascade Road (FS System Road 50165). Alternative 5 would also remove an additional culvert on a tributary of Joker Creek that is not a fish passage barrier as a part of a road re-route discussed in the Alternative 5 section.

Road Maintenance

Road maintenance may include the following activities: surface blading, culvert and ditch cleaning, removal of encroaching brush, installation of drivable dips, culvert installation and replacement, and surfacing. This maintenance would occur on FS System roads used by the Project which are open for public and/or administrative use, including seasonally open roads.

In Alternatives 2–4, road resurfacing of approximately 5.9 miles would be completed using crushed rock or pit run sources to improve the road surface and reduce watershed and fisheries impacts from sedimentation. These following areas would be resurfaced:

- Old Cascade Road (FS System Road 50165) in the Upper East Fork Weiser and Dewey Creek drainages—approximately 3.3 miles
- Pothole Basin Road (FS System Road 50177) (Fourth Gulch)—approximately 1.5 miles
- Grossen Canyon Road (FS System Road 50524)—approximately 1.1 miles

In addition to the areas identified above, spot gravelling of roads would occur at crossings, dips, and soft spots.

Alternative 5 includes an additional 6.0 miles of surfacing to accommodate re-routes.

Road Reconstruction

Road reconstruction in the Project area would include opening closed roads for Project use. Work would consist of clearing road beds of vegetation, removing earthen barriers or other obstructions, blading and reshaping road surfaces, installing drivable dips and culverts where needed, and spot surfacing where needed. The work would make the roads usable for log trucks and logging equipment for timber harvest and biomass utilization. The reconstructed roads in the Project area would be closed after use and would be managed as FS System roads, except in Alternative 5 where 4.8 miles of road reconstruction would remain open for use as part of rerouting open roads. No road reconstruction would occur in Alternative 1. Alternative 2 would reconstruct 63.2 miles of road; Alternative 3 would reconstruct 63.6 miles of road; Alternative 4 would reconstruct 61.1 miles of road; and Alternative 5 would reconstruct 65.0 miles of road.

Temporary Crossings

A portable bridge across First Gulch would be temporarily installed on an existing roadbed (road 501720310) approximately 700 feet north of the junction with FS System Road 50172. The bridge would allow access to units located north of First Gulch adjacent to private lands in Section 32, T18N, R1E and Section 5, T17N, R1E. The portable bridge would be removed, the crossing restored, and the proposed temporary road would be decommissioned (obliterated) upon completion of mechanized activities. This temporary bridge would be installed with all of the action alternatives.

Temporary culverts would be installed where access crosses intermittent or perennial streams in planned temporary roads or closed system roads where culverts have been removed. Where fish passage is needed, fish passage would be provided by partially burying culverts.

Recreation Improvements

Dispersed Recreation

Many short (less than 300 feet) sections of unauthorized road in the Project area may currently be used by the public for dispersed camping as allowed by the Forest Travel Management Plan (USDA Forest Service 2009) where adjacent to open or seasonally open roads. These sites may be improved by surfacing or other hardening and resource impacts may be reduced through barriers where stream impacts are found. Roads identified for decommissioning (obliteration) would be evaluated for site-specific dispersed recreation opportunities at the intersection with FS System open or open seasonally roads, if no resource concerns are identified.

One road identified for dispersed recreation that is longer than 300 feet (0.15 miles) would be added to the FS System and designated open for dispersed recreation. One FS System road, FS System Road 51856, which is currently closed, would be opened to dispersed recreation. This road is 0.16 miles long.

Dispersed recreation opportunities would be similar in all of the action alternatives.

Recreation Improvements at Deseret Cabin Trailhead and Proposed Mill Creek Snowmobile Parking Area to Shingle Flat Trail

All action alternatives include recreation improvements at the Deseret Cabin trailhead to improve recreational opportunities and reduce impacts at this site. Improvements include installing a kiosk and improving parking. A trail bridge would be installed on the trail at a stream crossing that is currently a ford on the Deseret Cabin trail (#201).

In addition, a non-motorized trail approximately 3.7 miles in length is proposed from the Mill Creek snowmobile parking area to Shingle Flat. The proposed route follows established trail tread from its origin at the snowmobile parking lot to its junction with FS System Road 50996. To aid in crossing the East Fork of Mill Creek near the beginning of the route, a foot bridge spanning the creek would be installed. The proposed trail then travels primarily through open stands of ponderosa pine and grass and would be a combination of new construction and existing user-created trail after the junction with FS System Road 50996. Once gaining the ridge above the headwaters of the East Fork of Mill Creek, the proposed trail descends through forest and brush to meet an existing unauthorized road connecting with FS System Road 51845 to Shingle Flat. A 1.0 mile loop is also part of the trail at the south end of the trail. The 1.0 mile section is included in the total mileage (3.7 miles).

Council Mountain Inventoried Roadless Area

Approximately 150 acres of prescribed burning and associated fireline to facilitate burning are the only activities planned in the Council Mountain IRA. No tree harvesting would occur in the IRA. Some down wood, small trees (less than 6 inches in diameter), and brush would be cut on the fireline to ensure prescribed burning is kept within prescription parameters. Activities in the Council Mountain IRA would be the same with all of the action alternatives.

Council Mountain Research Natural Areas

There is no treatment proposed in the Council Mountain Research Natural Area.

Alternative 2—Proposed Action

Vegetation Treatments

Approximately 5,081 acres of commercial harvest followed by prescribed burning; 3,204 acres of underburn-only treatments in mature stands; 4,064 acres of precommercial thinning or underburning in plantations; and 11,768 acres of burning in scattered timber, shrubland, and grass would occur under Alternative 2.

Transportation Management

Public access to FS System roads would not be changed, except for the FS System road change from closed to open as described in the “Recreation” section of the FEIS. Approximately 8.2 miles of unauthorized roads would be utilized in this proposal and be added to the FS System.

Approximately 6.1 miles of temporary roads would be built to access harvest units. These roads would be obliterated following harvest. There would also be 9.8 miles of unauthorized roads utilized and decommissioned (obliterated) after harvest operations.

A total of 19.3 miles of unauthorized road would be decommissioned (obliterated). Of the 19.3 miles of road decommissioned, 4.3 miles are currently used by livestock permittees for cattle trailing and fence maintenance and the Forest Service would coordinate with grazing permittees to provide for that use.

Finally, a total of 10.7 miles of FS System roads would be put into long-term closure.

Recreation Improvements

Under Alternative 2, a kiosk and parking improvement is proposed at the Deseret Cabin trailhead to improve recreational opportunities and reduce impacts at this site. Also proposed is a non-motorized trail from the Mill Creek snowmobile parking lot to Shingle Flat.

Alternative 3

Alternative 3 was primarily developed to include and evaluate the effects of new road construction and helicopter harvest in a portion of the stands not accessible to ground-based or skyline harvest methods.

Vegetation Treatments

Under Alternative 3, there would be approximately 6,694 acres of commercial harvest followed by prescribed burning; 1,591 acres of underburn-only treatments in mature stands; 4,064 acres of precommercial thinning or underburning in plantations; and 11,768 acres of burning in scattered timber, brush, and grass. The difference between Alternative 2 and Alternative 3 is that most of the mature stands that would be underburned only in Alternative 2 would be harvested with helicopters in Alternative 3.

Transportation Management

Public access to FS System roads would not be changed, except for the FS System road change from closed to open as described in the “Recreation” section of the FEIS and FS System Road 51606 in Bench Creek that would be a long-term closure. There would be 5.1 miles of new road construction.

Approximately 5.1 miles of new road construction would be completed to access stands for treatment. New road locations were designed to minimize impacts to soil and water resources. These roads would be closed following use.

Approximately 8.2 miles of unauthorized roads would be utilized in this project and added to the FS System while approximately 1.0 mile of temporary road would be built to access harvest units. These roads would be obliterated following harvest. There would also be 9.8 miles of unauthorized roads utilized and decommissioned (obliterated) after harvest operations.

A total of 29.5 miles of unauthorized road would be decommissioned (obliterated). Alternative 3 includes more decommissioning than Alternative 2 (proposed alternative) to offset effects of new construction proposed in this alternative. Of the 29.5 miles of road decommissioned, 5.7 miles are currently used by livestock permittees for cattle trailing and fence maintenance and the Forest Service would coordinate with grazing permittees to provide for that use.

Finally, a total of 10.6 miles of FS System road would be put into long-term closure.

Recreation Improvements

As in Alternative 2, a kiosk and parking improvement is proposed at the Deseret Cabin trailhead to improve recreational opportunities and reduce impacts at this site. Also as in Alternative 2, this alternative would include the non-motorized trail from the Mill Creek snowmobile parking lot to Shingle Flat.

Two vault toilets would be installed. One at Shingle Flat near the junctions of the Shingle Flat Road (FS System Road 50183) and West Shingle Road (FS System Road 51845) approximately 2.0 miles northeast of the Mill Creek snowmobile parking lot and the other at Five Corners at the south end of the Blue Bunch Ridge Road (FS System Road 50173) on the East Side of the upper East Fork Weiser River.

Alternative 4

This alternative was developed to respond to the following forest vegetation and wildlife issues:

- Restoration treatments in large tree, high and moderate canopy closure stands in moist grand fir habitat types may adversely affect the ecological function of these stands
- Restoration treatments, while a benefit to white-headed woodpeckers, may adversely affect source habitat for other wildlife species that are dependent on mixed conifer forests

with multi-layer structural characteristics, such as pileated woodpecker, flammulated owl, elk, and lynx

- Road densities affect wildlife (i.e., elk) security and can lead to the removal of important habitat components (i.e., snags)

Vegetation Treatments

Under Alternative 4, there would be approximately 3,953 acres of commercial harvest followed by prescribed burning; 2,957 acres of underburn-only treatments in mature stands; 4,064 acres of precommercial thinning or underburning in plantations; and 11,768 acres of burning in scattered timber, brush, and grass. The difference between Alternative 2 and Alternative 4 is that in Alternative 4, large tree, high and moderate canopy closure stands in PVG 6 are generally excluded from treatment. Where these stands were more isolated and would not contribute to blocks of dense, moist habitat, they were not excluded from treatment. This design feature was included in Alternative 4 to increase habitat for pileated woodpeckers and similar species and to provide additional elk security.

Transportation Management

Public access to FS System roads would be changed, as some roads currently open year-round would be open seasonally and one FS System road would be changed from closed to open as described in the “Recreation” section of the FEIS.

About 10.0 miles of roads currently open year-round and identified as important for wildlife security would be closed seasonally. Approximately 5.6 miles of road would be decommissioned (obliterated) to increase wildlife security.

Approximately 1.3 miles of new road construction would be completed to access stands for treatment. New road locations were designed to minimize impacts to soil and water resources. These roads would be closed following use. Approximately 7.5 miles of unauthorized roads would be utilized in this project and added to the FS System.

Approximately 1.0 mile of temporary road would be built to access harvest units. These roads would be obliterated following harvest. There would also be 9.5 miles of unauthorized roads utilized and decommissioned (obliterated) after harvest operations.

A total of 19.3 miles of unauthorized road would be decommissioned (obliterated). Of the 19.3 miles of road decommissioned, 4.3 miles are currently used by livestock permittees for cattle trailing and fence maintenance and the Forest Service would coordinate with grazing permittees to provide for that use.

A total of 5.6 miles of unauthorized road would be decommissioned (obliterated) to improve wildlife security while a total of 10.7 miles of FS System road would be in long-term closure.

Recreation Improvements

As in Alternative 2, a kiosk and parking improvement is proposed at the Deseret Cabin trailhead to improve recreational opportunities and reduce impacts at this site. Also as in Alternative 2, this alternative would include the non-motorized trail from the Mill Creek snowmobile parking lot to Shingle Flat.

Two vault toilets would be installed. One at Shingle Flat near the junctions of the Shingle Flat Road (FS System Road 50183) and West Shingle Road (FS System Road 51845) approximately

2.0 miles northeast of the Mill Creek snowmobile parking lot and the other at Five Corners at the south end of the Blue Bunch Ridge Road (FS System Road 50173) on the East Side of the upper East Fork Weiser River.

Alternative 5

This alternative was developed to respond to the following forest plan direction for the East Fork Weiser River, an ACS high priority watershed:

- Emphasize forest plan direction to restore watershed indicators in ACS high priority watersheds (upper East Fork Weiser River subwatershed)
- Restore and reconnect critical bull trout habitat where habitat is currently occupied
- Address past legacy effects of road construction on soil and water resources

This alternative focuses on improving watershed conditions for bull trout in the upper portion of the East Fork Weiser River subwatershed. It includes re-routing portions of two FS System roads, Dewey Creek Road (FS System Road 50487) and Joker Creek Road (FS System Road 50486), with additional decommissioning (obliteration) of unauthorized roads and long-term closure of FS System roads.

Vegetation Treatments

The vegetation treatments are the same as in the Proposed Action.

Transportation Management

Existing FS System roads and 1.2 miles of road construction would be utilized for re-routes, which would be open year-round once completed. A total of 3.6 miles of Dewey Creek Road (FS System Road 50487), Cocker Road (FS System Road 50902), and Joker Creek Road (FS System Road 50486) would be decommissioned (obliterated) in a portion of their current locations. Approximately 1.3 miles of FS System seasonally open roads would be converted to open year-round, and 3.5 miles of closed FS System road would be converted to open year-round. One mile of the Joker Creek Road currently open year-round would be open seasonally as it accesses the seasonally open Porcupine Road (FS System Road 50623). The re-routing and decommissioning would remove stream crossings and road segments adjacent to streams. These road re-routes and associated decommissioning is defined as “Road Realignment” and is considered road reconstruction as defined in the Forest Plan (USDA Forest Service 2003) definition.

In addition to the re-routes, approximately 5.2 miles of new road construction would be completed to access stands for treatment. New road locations were designed to minimize impacts to soil and water resources. These roads would be closed following use. Total new construction in Alternative 5 is 6.4 miles.

Approximately 8.2 miles of unauthorized roads would be utilized in this project and added to the FS System road system.

Approximately 1.0 miles of temporary roads would be built to access harvest units. These roads would be obliterated following harvest. There would also be 9.8 miles of unauthorized roads utilized and decommissioned (obliterated) after harvest operations.

A total of 40.7 miles of unauthorized road would be decommissioned (obliterated). Of the 40.7 miles of road decommissioned, 5.7 miles are known to be currently used by livestock permittees for cattle trailing, and a path would be provided for that use. A total of 14.6 miles of

FS System road would also be decommissioned, including the 3.2 miles of Dewey Creek and Joker Creek roads described above.

A total of 5.6 miles of unauthorized road would be decommissioned (obliterated) which are included in the total listed above while a total of 22.9 miles of FS System road would be put into long-term closure.

Recreation Improvements

As in Alternative 2, a kiosk and parking improvement is proposed at the Deseret Cabin trailhead to improve recreational opportunities and reduce impacts at this site. Also as in Alternative 2, this alternative would include a non-motorized trail from the Mill Creek snowmobile parking lot to Shingle Flat.

Two vault toilets would be installed. One at Shingle Flat near the junctions of the Shingle Flat Road (FS System Road 50183) and West Shingle Road (FS System Road 51845) approximately 2.0 miles northeast of the Mill Creek snowmobile parking lot and the other at Five Corners at the south end of the Blue Bunch Ridge Road (FS System Road 50173) on the East Side of the upper East Fork Weiser River.

COMPARISON OF ALTERNATIVES

Table S-1 compares activities by alternative. Table S-2 compares objectives by alternative. Table S-3 compares issues by alternative.

Table S-1. Comparison of alternatives by activity

Restoration and Reserve Stand Treatment (Acres)	Alternative				
	1	2	3	4	5
Restoration Stand treatment harvest and burn	0	4,526	5,931	3,644	4,526
Reserve Stand treatment harvest and burn	0	555	763	309	555
Total harvest and burn	0	5,081	6,694	3,953	5,081
Prescribed Fire (Acres)					
Total Burn Only in Forest Stands	0	3,204	1,591	2,957	3,204
Non-forested, aspen, scattered timber and grass and shrubland burn	0	11,768	11,768	11,768	11,768
Total prescribed fire and subsequent maintenance burning (includes Restoration and Reserve Treatments)	0	20,053	20,053	18,678	20,053
Plantation Treatment (Acres)					
Traditional precommercial thinning treatments	0	1,457	1,457	1,457	1,457
Older plantation precommercial thinning treatments with potential biomass removal	0	2,607	2,607	2,607	2,607
Total Precommercial Thinning Treatment	0	4,064	4,064	4,064	4,064
WUI (Acres)					
Shaded Fuelbreak (WUI Area Treated)	0	140	140	140	140
RCA (Acres)					
RCA harvest/thinning (includes Restoration Stand thinning and precommercial thinning and is a subset of acres listed in those categories)	0	603	753	537	603
Harvest System (Acres)					
Ground based	0	4,291	4,291	3,295	4,291
Cable and Skyline	0	790	790	658	790
Helicopter	0	0	1,613	0	0
Total Harvest Method Mature Stands	0	5,081	6,694	3,953	5,081
Harvest Systems Older Plantation Treatments					
Tractor		1,837	1,837	1,837	1,837
Harvest Volume					
Estimated Volume Harvested (MMBF)	0	27	37	21	27

Table S-1. Comparison of alternatives by activity (continued)

Transportation (Miles)	Alternative				
	1	2	3	4	5
New Construction–Existing unauthorized road added to Forest Service System and put into Level I maintenance (i.e., drainage improvements and closed to use)	0	8.2	8.2	7.5	8.2
New FS System road construction (includes 1.2 miles of road realignment in alt.5 defined as reconstruction by Forest Plan definition)	0	0	5.1	1.3	6.4 ²
New temporary road (obliterated following use)	0	6.1	1.0	1.0	1.0
Temporary Road–Unauthorized roads used for harvest and decommissioned (obliterated) after use	0	9.8	9.8	9.5	9.8
Existing unauthorized road decommissioning (obliteration)	0	19.3	29.5	24.9	40.7
FS System road decommissioning (obliteration)	0	0	0	0	14.6
Total Road decommissioning (obliteration)	0	29.1	39.3	34.4	65.1
FS System road long-term closure	0	10.7	10.6	10.7	22.9
FS System road currently open year-round converted to open seasonally	0	0	0	10.3	1.0
FS System road currently open seasonally converted to open year-round	0	0	0	0	1.3
FS System road currently closed converted to open year-round	0	0	0	0	3.5
Watershed & Fisheries Mitigation and Restoration within the East Fork Weiser River (an ACS priority watershed)					
Net miles of road eliminated within RCAs through decommissioning	0	5.1	6.7	5.4	12.8
Road–Stream Crossings Improved	0	32	33	32	66

² Includes 1.2 mi of road realignment in Alternative 5 (see section 2.3.2.5, Road Re-routes)

Table S-2. Comparison of alternatives by objective

Forest Vegetation Resource Objective: <i>Move vegetation toward the desired future conditions defined in the Forest Plan, with an emphasis on promoting the development of large tree forest structures, reintroducing fire into the ecosystem, and improving forest health</i>					
Measurement	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Area (acres) treated affecting tree size class distributions, canopy closure, tree species composition, and spatial patterns ³	0	8,285	8,285	6,910	8,285
Fire and Fuels Resource Objective: <i>To reduce wildland fire hazard in forested stands for resource protection and reduction of risk in the Wildland Urban Interface (WUI)</i>					
Measurement	Alt 1		Alts 2-5		
Fire Return Interval Departure (FRID) Value	PVG 2—3.6 PVG 5—2.0 PVG 6—0.5 Grass/shrublands—2.3		PVG 2—0.1 PVG 5—0.1 PVG 6—0.25 Grass/shrublands—0.1		
Measurement	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Area (acres) of reduced potential fire behavior	0	20,053	20,053	18,680	20,053
Wildlife Resource Objective: <i>Improve habitat for white-headed woodpeckers, by restoring forested stands toward the desired future conditions defined in the Forest Plan and historical range of variability (HRV)</i>					
Measurement: Quantity (acres) and quality (old forest and snags, patch and pattern) of Family 1 white-headed woodpecker habitat restored to conditions within the HRV					
Measurements	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Quantity (acres) of white-headed woodpecker habitat restored to conditions within the HRV.	0 (1,033 current total)	4,519 (5,552 total)	5,033 (6,066 total)	3,167 (4,200 total)	4,519 (5,552 total)
Quality of white-headed woodpecker habitat restored to HRV as represented by old forest conditions	Decrease over time	Increase over time	Increase over time	Increase over time	Increase over time
Quality of white-headed woodpecker habitat restored to HRV as represented by snag conditions	Maintain	Maintain	Maintain	Maintain	Maintain

³ See section 3.2 Vegetation Resource for a discussion of effects. This acreage does not include precommercial thinning treatments

Table S-2. Comparison of alternatives by objective (continued)

Economic Resource Objectives: <i>To contribute to the economic vitality of the communities adjacent to the Payette National Forest</i>					
Measurements	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Employment contribution (number of job years)	0	326	414	259	320
Income contribution	0	\$10,839,530	\$13,686,420	\$8,668,400	\$11,117,720
Tons of biomass removed	0	39,400	47,900	32,700	39,400

Table S-3. Comparison of alternatives by issue

Forest Vegetation Issue: Restoration treatments in large tree—high and moderate canopy closure stands in moist grand fir habitat types may adversely affect the ecological function of these stands.					
Indicator: Area (acres) treated affecting large tree – high and moderate canopy closure stands in moist grand fir habitat types.					
Indicator	Alternative				
	1	2	3	4	5
Area (acres) treated affecting large tree – high and moderate canopy closure stands in moist grand fir habitat types.	0	1,786	1,786	513	1,786
Wildlife Resources Issue: Restoration treatments, while a benefit to white-headed woodpeckers, may adversely affect source habitat for other wildlife species that are dependent on mixed conifer forests with multi-layer structural characteristics, such as pileated woodpecker, flammulated owl, elk, and lynx.					
Indicator: Quantity (acres) and quality (old forest and snags, patch and pattern) of habitat for wildlife species that require moderate to dense, mixed-conifer forests (pileated woodpecker, flammulated owl, elk, and lynx.)					
Indicator	Alternative				
	1	2	3	4	5
Pileated Woodpecker habitat quantity	16,137	11,746	11,309	13,098	11,746
Flammulated Owl habitat quantity	12,993	8,014	7,560	8,666	8,014
Change in Elk security habitat quantity based on vegetation	No Change	Decrease	Decrease	Decrease	Decrease
Change in Lynx habitat quantity	Maintain	Maintain	Maintain	Maintain	Maintain

Table S-3. Comparison of alternatives by issue (continued)

Wildlife Resources Issue Road densities affect wildlife (i.e., elk) security and can lead to the removal of important habitat components (i.e., snags).					
Indicator: Change in security areas (Hillis et al. 1991) and miles of NFS roads and unauthorized roads decommissioned by either physical closure, or by obliteration, and estimated effectiveness of decommissioning and resulting effects to elk and snags and wildlife species of concern.					
Indicator	Alternative				
	1	2	3	4	5
Change in Elk Security Areas	0	Reduce SA#3 - 8 ac.	Reduce SA#3 - 8 ac.	Reduce SA#3 – 8 ac.	Reduce SA#3 - 8 ac. Increase SA#2- 92ac.
Change in Roads Mile on FS Transportation System ⁴	0	+8.2, but closed to travel	+13.3, but closed to travel	+8.8, but closed to travel	+14.6, most closed to travel, remaining open allows for closure of road in RCA
Change in Road Miles Decommissioned(Obliteration) For Wildlife Security	0	0	0	-5.6 miles	-5.6
Change in Road Miles Decommissioned (Obliterated) for Primary Purpose Other Than Wildlife Security, but Providing Wildlife Benefit	0	-29.1	-39.3	-28.8	-59.5
Net Miles of Road Currently Open Year-Round Converted to Open Seasonally	0	0	0	10.3	0.3

⁴ Change in road miles on FS transportation system includes new construction which is new FS System road construction and existing unauthorized roads added to the Forest Service System.

Table S-3. Comparison of alternatives by issue (continued)

Wildlife Issue: Project activities (e.g., logging, prescribed burning) may affect other wildlife species of concern, such as Canada lynx and northern Idaho ground squirrel (NIDGS).					
Indicator	Alternative				
	1	2	3	4	5
Determination of Effects to Canada Lynx	No Effect	Not Likely to Adversely Affect	Not Likely to Adversely Affect	Not Likely to Adversely Affect	Not Likely to Adversely Affect
Determination of Effects to Northern Idaho Ground Squirrel	No Effect	Not Likely to Adversely Affect	Not Likely to Adversely Affect	Not Likely to Adversely Affect	Not Likely to Adversely Affect

Table S-3. Comparison of alternatives by issue (continued)

Soil, Water and Fisheries Issue: <i>Effects of thinning, prescribed fire, road management, and other project-related activities on soil, water, riparian and aquatic (SWRA) resources.</i>															
Indicator	Alternative														
	1			2			3			4			5		
	Temp	Short	Long	Temp	Short	Long	Temp	Short	Long	Temp	Short	Long	Temp	Short	Long
Sediment percent over natural during project implementation and long term as modeled by BOISED. (SEE SECTION 3.5, WATERSHED RESOURCES FOR SUBWATERSHED DETAIL)	0	0	0	-	-	+	-	-	+	-	-	+	-	-	+
Indicator	Alternative														
	1			2			3			4			5		
Total road density (mi/mi ²) (Project area only)	2.7–6.4			2.7–6.4			2.6–6.4			2.7–6.3			2.6–6.4		
Total road density (mi/mi ²) for East Fork ACS priority subwatershed	5.7			5.4			5.3			5.3			4.3		
Miles of new permanent road constructed including roads added to the Forest System	0			8.2			13.3			8.8			14.6		
Miles of temporary road constructed including unauthorized road used as temporary road	0			15.9			10.8			10.5			10.8		

Table S-3. Comparison of alternatives by issue (continued)

Soil, Water and Fisheries Issue: <i>Effects of thinning, prescribed fire, road management, and other project-related activities on soil, water, riparian and aquatic (SWRA) resources.</i>					
Indicator	Alternative				
	1	2	3	4	5
Miles of existing road decommissioned (obliterated).	0	29.1	39.3	34.4	65.1
Miles of road decommissioned within riparian conservation areas (RCAs) ⁵	0	Net 11.0 11.5	Net 14.3 15.0	Net 11.5 12.0	Net 20.6 21.4
Number of road/stream crossings improved	0	63	73	69	106
Levels of Detrimental Soil Disturbance (DD).	The Forest Plan would be attained over time	Compliant with the Forest Plan Standard (with project design features, mitigation measures and BMPs)			
Levels of Total Soil Resource Commitment (TSRC) across the Project area	Remain at 2.9%	2.7%	2.7%	2.7%	2.6%
Levels of coarse woody debris (CWD)	Initially unchanged and trend toward desired condition	Trend toward Forest Plan desired condition of 4–10 tons per acre more quickly than Alternative 1, and similar to Alternatives 3, 4 and 5.			

⁵ Net refers to the miles of new road construction subtracted from the miles of road decommissioned. Existing unauthorized roads that would be added to the Forest Service System are included in the new road construction miles.

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IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The preferred alternative is Alternative 5. The Responsible Official's selected alternative for implementation could be this alternative, one of the other alternatives considered in detail, or a combination of the other alternatives considered in detail. The final decision will be documented in a record of decision (ROD) accompanying the FEIS.

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