United States
Department of
Agriculture

Forest Service

Intermountain
Region

April 2017

DRAFT
RECORD OF DECISION

MIDDLE FORK WEISER RIVER LANDSCAPE RESTORATION PROJECT

Payette National Forest

Council Ranger District

Adams County, Idaho

Cover Photo: Middle Fork Weiser River Falls by Trisha Giambra

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, DC 20250-9410, or call (800) 795-3272. USDA is an equal employment opportunity provider and employer.

DRAFT

Record of Decision

Middle Fork Weiser River Landscape Restoration Project

Council Ranger District

Payette National Forest

Adams County, Idaho

April 2017

Lead Agency:	USDA Forest Service
Responsible Official:	Keith Lannom, Forest Supervisor Payette National Forest 800 West Lakeside Avenue McCall ID 83638
For Further Information Contact:	Greg Lesch, District Ranger Council Ranger District (208) 253-0101

This page intentionally left blank.

TABLE OF CONTENTS

Introduction....1
Project Area Description....1
Decision and Rationale....4
Decision Authority....4
My Decision....4
Selected Alternative....6
Vegetation Treatments....7
Noncommercial Treatments....8
Commercial Treatments—10,403 acres....10
Additional Vegetation Treatments—6,679 acres....17
Watershed Improvement and Restoration Treatments....23
Transportation Management....25
Recreation Improvements....27
Changes between the Draft and Final EIS....30
Rationale for Decision....30
Why was the *Selected Alternative* Chosen?....30
How the *Selected Alternative* Responds to the Purpose and Need....32
How the Selected Alternative Responds to the Issues....37
How the *Selected Alternative* Responds to Public Comments....41
Public Involvement....41
Concerns Raised During the DEIS Public Comment Period....42
Predecisional Administrative Review....42
Tribal Consultation....43
Alternatives Considered In Detail....43
Reasons for Not Selecting Alternative 1....50
Reasons for Not Selecting Alternative 2....50
Reasons for Not Selecting Alternative 3....50
Reasons for Not Selecting Alternative 4....50
Alternatives Considered but Eliminated from Detailed Study....51
Consistency with the Forest Plan....51

Consistency with Other Laws and Regulations 51
Archaeological Resources Protection Act of 1979 51
American Indian Religious Freedom Act 52
Clean Air Act, as amended in 1990 52
Clean Water Act, as amended in 1977 and 1982 52
Civil Rights, Consumers, Minorities, and Women 52
Endangered Species Act of 1973, as amended 52
Executive Order 11990—Protection of Wetlands 53
Executive Order 11988—Floodplain Management 53
Executive Orders Pertaining to Tribal Consultation 53
Executive Order 12898—Environmental Justice 53
Executive Order 13112—Invasive Species 53
Executive Order 13186—Responsibilities of Federal Agencies to Protect Migratory Birds 54
Federal Noxious Weed Act of 1974 54
Idaho Forest Practices Act 54
Native American Graves Protection and Repatriation Act 54
Migratory Bird Treaty Act of 1918 54
Facilitation of Hunting Heritage and Wildlife Conservation—E.O. 13443 55
National Environmental Policy Act of 1969, as amended 56
National Forest Management Act of 1976 56
National Historic Preservation Act of 1966, as Amended 56
Omnibus Public Land Management Act of 2009 56
Environmentally Preferable Alternative 57
Implementation 58
Contact Person 59
Literature Cited 60
Attachment 1- Project Design Features 61
Project Design Features / Mitigation Measures 61

List of Figures

Figure ROD-1. Middle Fork Weiser River Landscape Restoration Project vicinity map. 3

List of Tables

Table ROD-1. Summary of activities to be implemented under this decision. 5

Table ROD-2.Vegetation treatment summary. 8

Table ROD-3. Vegetation treatment acres within Riparian Conservation Areas (RCAs)..... 8

Table ROD-4. Soil, water, riparian, and aquatic (SWRA) resource improvement treatment summary..... 23

Table ROD-5. Selected alternative summary of road treatments. (Note: Figures were rounded to the nearest whole number, so totals may differ.) 26

Table ROD-6. *Selected Alternative* summary of recreation improvements. 27

Table ROD-7. Selected alternative Minimum Road System (MRS). 41

Table ROD-8. Comparison of alternatives by activity. 44

Table ROD-9. Comparison of alternatives by objective..... 45

Table ROD-10. Comparison of alternatives by issue. 48

Table PDF-1. Project design features and mitigation measures for wildlife. 63

Table PDF-2. Project design features and mitigation measures for botanical resources. 69

Table PDF-3. Project design features and mitigation measures for Soil, Water, Riparian and Aquatic Resources (SWRA). 70

Table PDF-4. Project design features and mitigation measures for rangeland. 88

Table PDF-5. Project design features and mitigation measures for threatened, endangered, proposed, candidate, and sensitive species. 90

Table PDF-6. Project design features and mitigation measures for forested vegetation. 91

Table PDF-7. Project design features and mitigation measures for legacy trees/old forest. 94

Table PDF-8. Project design features and mitigation measures for air quality. 94

Table PDF-9. Project design features and mitigation measures for cultural resources. 95

Table PDF-10. Project design features and mitigation measures for recreation and visual quality. 96

INTRODUCTION

The Middle Fork Weiser River Landscape Restoration Project (Project) 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 Project on the Council Ranger District (District) of the Payette National Forest (Forest) in Adams County, Idaho. Proposed restoration activities include timber harvest, biomass harvest, road reconstruction, road realignment, temporary road construction, road decommissioning, culvert removal, thinning of submerchantable trees, prescribed fire, and other actions as described in detail in Chapter 2 of the FEIS. Proposed recreation improvements include designated and dispersed recreation site improvements, motorized and nonmotorized trail development and realignment, trailhead improvements, and replacement of a vault toilet. 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 2003a).

The Forest's 800,000-acre Weiser-Little Salmon Headwaters Project (WLSH) was accepted in the Collaborative Forest Landscape Restoration (CFLR) Program[1] in 2012, and the Project is within the WLSH area. The purpose of the CFLR Program is to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes. Planning for this Project was initiated in summer 2013 in collaboration with the Payette Forest Coalition (PFC). The PFC, formed in June 2009, is a collaborative group comprised of stakeholders from a broad range of outside interests, including the environmental community, timber industry, recreational groups, and State and county government. The goal of the PFC is to work to sustain the ecologic function of landscapes and the economic health of rural communities.

As part of the planning process, a Project Travel Analysis Process (TAP) was completed in June 2013 and updated in November 2013, and the Interdisciplinary Team (IDT) identified a Minimum Road System (MRS) recommendation (USDA Forest Service 2013a). The MRS identified National Forest System (NFS) roads needed for the protection, administration, and utilization of the NFS lands and the use and development of its resources. The Middle Fork Weiser River Landscape Assessment (Assessment) (USDA Forest Service 2014a) was also completed for this Project to assess the existing conditions compared with historical conditions within the Project area. This EIS uses information from the TAP and Assessment as a basis for assessing existing versus desired conditions and the formulation of the Proposed Action.

Project Area Description

The Project area is located approximately 6 miles southeast of Council, Idaho, in Adams County. Land ownership within and adjacent to the Project area includes NFS lands, Idaho State lands, and private ownership. Access to the area is via the Middle Fork Weiser River Road (NFS road

[1] Established with the Omnibus Public Land Management Act of 2009, PL 111–11.

50186), accessed by US Highway 95, south of Council, Idaho, or via State Highway 55 and West Mountain Road (NFS road 50195) west of Donnelly, Idaho.

The Project area encompasses approximately 49,276 acres within the Weiser River drainage and comprises approximately 38,519 acres of NFS lands and 10,757 acres of private lands within the following five subwatersheds: Little Fall Creek–Weiser River, Mica Creek–Weiser River, Jungle Creek–Weiser River, Granite Creek–Weiser River, and a portion of the upper East Fork Weiser River (Figure 1.2 1). The Project area is located in T14N, R1E, Section 1; T14N, R2E Section 6; T15N, R1E, Sections 1–5, 9–16, 21–27, 35, and 36; T15N, R2E, Sections 1–12, 14–22, and 28–32; T16N, R1E, Sections 1, 12, 13, 24–27, and 32–36; T16N, R2E, Sections 2–11 and 14–35; T17N, R2E, Sections 27–34, Boise Meridian (Figure ROD-1).

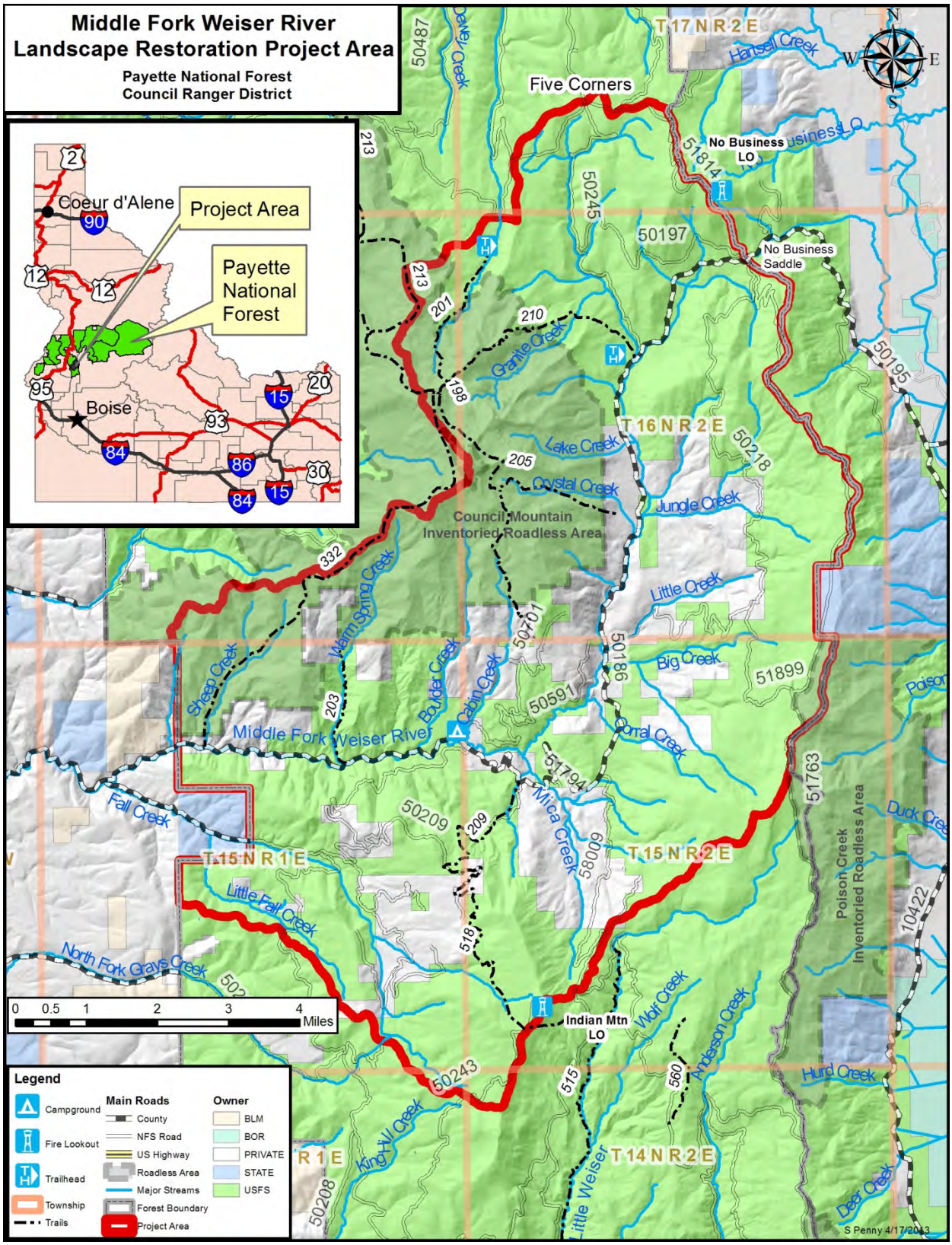

Figure ROD-1. Middle Fork Weiser River Landscape Restoration Project vicinity map.

DECISION AND RATIONALE

Decision Authority

Pursuant to the delegation by the Secretary of Agriculture at 7 CFR 2.60 and Chief of the Forest Service at FSM 2402.2 and Exhibit 01 at FSM 2404.28, I have been delegated the authority to make this decision.

My Decision

As disclosed in Section 1.9 of the FEIS, this decision will answer the following questions:

Should the Forest Service implement this Project, including commercial and noncommercial vegetation treatments, fuels reduction, road management, watershed and fish habitat restoration, and recreation improvements, at this time?

If so:

- What and how many acres should be treated and by what means?
- What action should be taken on recreational facilities, trails, and dispersed recreation sites?
- What watershed restoration and fish habitat improvements should be implemented?
- What road management actions should be implemented and what should the Minimum Road System for the Project area be?
- What Project design features (PDFs) or mitigation measures are necessary to assure compliance with the Forest Plan?
- What monitoring requirements are appropriate to evaluate Project implementation and effectiveness?
- Should a site-specific, nonsignificant amendment of the Forest Plan be prepared to allow for creating more than 30% unsuitable Canada lynx (*Lynx canadensis*) habitat (Forest Plan Standard TEST15; USDA Forest Service, 2003a) within the Middle Fork Weiser River Lynx Analysis Unit (LAU) only?

Based on my review of the environmental analysis disclosed in the FEIS, the Project record, and consideration of public comments received on the draft Environmental Impact Statement (DEIS), I have decided to implement Alternative 5, further referred to as the Selected Alternative. The Selected Alternative includes vegetation management activities, watershed restoration treatments, road management activities, and recreation management activities.

Table ROD-1 provides a summary of activities that the Selected Alternative authorizes for implementation. Many other activities and associated actions are included in this decision. This decision incorporates adherence to all Forest Plan management requirements, PDFs, and monitoring requirements as described in the FEIS (see FEIS Chapter 2, Tables 2.4-1 through 2.4-10).

Table ROD-1. Summary of activities to be implemented under this decision.

Vegetation Management	
Noncommercial Thin (NCT)	1,369 acres
Restoration Burned Areas / Plantations (BA / PL)	3,229 acres
Commercial Thin-Free Thin (CT-FT)	2,879 acres
Free Thin-Patch Cut-Modified Shelterwood (FT-PC-MSw)	5,367 acres
Commercial Thin / Mature Plantations (CT-MP)	1,070 acres
Conifer Removal in Aspen Stands (CT-ASP)	1,087 acres
Vegetation treatments in stands with Low Site Quality (LSQ)	947 acres
Dry Nonforested Vegetation Treatment (NFT)	4,944 acres
Wet Meadow Treatment (WMT)	315 acres
Shaded Fuelbreak (SFB)	458 acres
Fuel Reduction within Riparian Conservation Area (RCA)	15 acres
Total Commercial Vegetation Treatments	**21,679** acres
Total Vegetation Treatments within RCAs[a]	3,162 acres
Prescribed Fire Treatment (PFT)	**27,200** acres
Total Prescribed Fire Treatments in RCAs	7,386 acres
Recreation Management and Travel Management	
Vault toilet installation	2
Kiosk and fee tube installation	1
Minimum Road System (MRS)	139 miles
Change in miles of roads accessible by passenger vehicles	- 10 miles
Change in miles of motorized access	+2.0 miles
Change in miles of motorized trails open to the public[b]	+15 miles
Change in miles of non-motorized trails	-1.2 miles
Change in number of improved dispersed campsites	+ up to 20
Trailhead construction and relocation	2 trailheads
Trail maintenance	28 miles
Road Management, Watershed Restoration, Fisheries Habitat Improvements	
Roads maintained or improved	78 miles
Roads converted to long-term closure status	19 miles
System road decommissioning	16 miles
Unauthorized route decommissioning	60 miles
Roads added to the system[c]	4 miles
Road realignment	4 miles
Planned temporary roads	
New construction and obliterate	9 miles
Use existing roadbed and obliterate	40 miles
Gravel pits utilized	5 pits
Stream miles improved	55 miles
RCA road decommissioning	23 miles
RCA road graveling	6 miles
Improvement through culvert replacement for aquatic organism passage	6 miles

a = These are not additional acres, they are included in the other treatment acreages listed above but are listed here to disclose that some of these treatments would occur within RCAs. All commercial vegetation treatments within RCAs are outside of East Fork Weiser River.
b = Motorized access includes roads accessible by passenger vehicles and motorized trails intended for OHV use.
c = Reconstruction of these roads added to the system will not be funded by Collaborative Forest Landscape Restoration Program resources.

My decision is based on a review of the Project record, which includes a thorough review of relevant scientific information, consideration of responsible opposing views, and acknowledgement of incomplete or unavailable information, scientific uncertainty, and risk. I have considered input from groups and individuals with responsible opposing views and

discussed our response to them in FEIS Appendix 9, Response to Public Comments on the DEIS, and the Project record.

I know that my decision will not completely satisfy every group or individual; however, I have concluded that it is an informed choice that provides a reasonable mix of actions and moves the Project area toward desired conditions as defined in the Forest Plan.

I firmly believe my decision as defined in this Record of Decision for the Middle Fork Weiser River Landscape Restoration Project exemplifies the Chief's and Congress' intentions for accelerating restoration across a large landscape using a collaborative process. For more than 7 years, members of the Payette National Forest (Forest) staff have worked collaboratively on this and other projects with the PFC, which represents a broad range of stakeholders. The PFC gave recommendations for restoration treatments across the 50,000-acre Middle Fork Weiser River landscape that were considered during Project development. The selected treatments will move forested landscapes towards desired conditions, producing forest products that support the economic viability of the surrounding rural communities while at the same time improving habitat for sensitive wildlife species, particularly the white-headed woodpecker (*Leuconotopicus albolarvatus*). Road and watershed treatments will improve the watershed condition in all subwatersheds through system and unauthorized road decommissioning while improving over 55 miles of aquatic habitat through Riparian Conservation Areas (RCA) road decommissioning, RCA road graveling, and culvert replacement for aquatic organism passage (AOP). Over 76 miles of road, including 16 miles of NFS road and 60 miles of unauthorized routes, will ultimately be decommissioned through implementation of this Project. Improvements to Cabin Creek Campground and dispersed sites in the Project area will enhance recreation opportunities while improving public safety as well as forest and watershed health. Through the use of prescribed fire on 27,000 acres, we will aid in restoring the natural processes that sustain the desired forest conditions while reducing hazardous fuels and the risk of uncharacteristic fires.

SELECTED ALTERNATIVE

Based on the effects analysis disclosed in Chapter 3 of the FEIS, I believe that the Selected Alternative best meets the Purpose and Need for the Project and is consistent with the Forest Plan as well as all laws, regulations, and policy governing NFS land management.

My decision includes the following landscape restoration treatments: silvicultural treatments, the use of prescribed fire, temporary road construction, road realignments, open roads converted to seasonally open roads, road maintenance, road decommissioning and long-term closures, culvert upgrades and removals, trail construction and trail improvements, vault toilet installation, dispersed camping improvements, PDFs / Project mitigation, and a monitoring plan. The Selected Alternative best meets the agency's goal to improve soil, water, and riparian and aquatic resources, which would be accomplished by the decommissioning of roads impeding proper hydrologic function. Road-decommissioning methods have evolved, and slash and other erosion-control measures will be used to match conditions adjacent to the road treatment area and are designed to minimize interference to foot, horse, and livestock travel.

As disclosed above, the Selected Alternative is a modified version of Alternative 2 that incorporates aspects of Alternatives 3 and 4 to better meet the Purpose and Need and respond to issues and public comments. The Selected Alternative is analyzed in the FEIS as Alternative 5. This section describes all aspects of the Selected Alternative that are included in this decision.

This description includes all actions, management requirements, PDFs, and monitoring requirements authorized by this decision. A map book for Alternative 5 depicting the activities included in the Selected Alternative is in Appendix 1 of the FEIS.

Vegetation Treatments

As more fully described in the FEIS Chapter 2, proposed vegetation treatments were developed using a combination of data derived from aerial photo interpretation and field reconnaissance. Current information was used by the IDT to estimate values such as number of acres treated, road miles, and timber volume. On the maps of alternatives, prescribed fire, thinning, and harvest unit locations and prescriptions are also best estimates based on current information. Some adjustments may occur during Project design and layout to conform to on-the-ground conditions. In all cases, adjustments would be made to meet the intent of the Purpose and Need and the Forest Plan (USDA Forest Service 2003a).

Proposed activities for all action alternatives were developed using a combination of data derived from aerial photo interpretation and field reconnaissance. Layout of exact boundaries and treatment types would be determined based upon additional on-the-ground surveys and vegetative conditions within each stand. Based on PDFs and the intent of the proposed treatments, it is anticipated that further ground verification may result in a reduction of commercial treatments and a resultant increase in noncommercial treatments. The anticipated reduction in acreage of commercial treatments from proposed to the expected implementation acreages are based on the fact that further site-specific verification is necessary to comply with management requirements and PDFs, such as those regarding RCAs, landslide-prone (LSP) areas, wildlife concerns, and archaeology concerns, and would preclude treating some of the proposed areas. Although all acres proposed for treatment would be evaluated based on the descriptions of treatments provided below, only acres that meet the intent of the treatment descriptions, are economically feasible, and are consistent with the PDFs will be treated. Therefore, total acres of commercial treatments are anticipated to be reduced by 10–40 percent from those proposed, based on field review of proposed treatments and actual implementation of similar previous projects on the Forest. Actual treatment unit boundaries are anticipated to vary from the GIS files and maps displayed in this document. The maps provided in this document are diagrammatic; actual unit boundaries and treatment units would be determined after further on-the-ground verification. Limitations such as slope, RCA boundaries, acres treated per 6th field watershed, and wildlife constraints would be applied during treatment unit delineation on the ground (Table ROD-2 and Table ROD-3).

Table ROD-2.Vegetation treatment summary.

Type of Vegetation Treatment	Acronym	Total Acres
Noncommercial Thin	NCT	1,369
Restoration Burned Areas / Plantations	BA / PL	3,229
Commercial Thin-Free Thin	CT-FT	2,879
Free Thin–Patch Cut-Modified Shelterwood[a]	FT-PC-MSw	5,367
Commercial Thin / Mature Plantations	CT-MP	1,070
Conifer Removal in Aspen Stands	CT-ASP	1,087
Vegetation treatments in stands with Low Site Quality	LSQ	947
Dry Nonforested Vegetation Treatment	NFT	4,944
Wet Meadow Treatment	WMT	315
Shaded Fuelbreak	SFB	458
Fuel Reduction within a Riparian Conservation Area (RCA)	FR-RCA	15
Total Acres of Vegetation Treatments		21,679
Prescribed Fire Treatment[b]	PFT	27,200

Note: Acres include area within RCAs. None of these treatments are proposed within the inner portion of RCAs except for the FR-RCA and WMT treatments.
[a]Only CT-FT would be used in this type of treatment unless there is aspen present where Conifer Removal in Aspen Stand treatment would be utilized in that portion of the outer RCA.
[b]Prescribed fire would be allowed to back into RCA.

Table ROD-3. Vegetation treatment acres within Riparian Conservation Areas (RCAs).

Type of Vegetation Treatment within RCAs	Acronym	Total Acres
Noncommercial Thin	NCT	116
Burned Areas / Plantations	BA/PL	380
Commercial Thin-Free Thin	CT-FT	336
Free Thin–Patch Cut-Modified Shelterwood[a]	FT-PC-MSw	971
Commercial Thin / Mature Plantations	CT-MP	168
Conifer Removal in Aspen Stands	CT-ASP	181
Vegetation treatments in stands with Low Site Quality	LSQ	169
Dry Nonforested Vegetation Treatment	NFT	432
Wet Meadow Treatment[b]	WMT	315
Shaded Fuelbreak	SFB	83
Fuel Reduction within a Riparian Conservation Area (RCA)[b]	FR-RCA	15
Total Acres of Vegetation Treatments within RCAs		3,162
Prescribed Fire Treatment[c, d]	PFT	7,386

[a]Only CT-FT would be used in this type of treatment unless there is aspen present where conifer removal in aspen stand treatment would be utilized in that portion of the outer RCA.
[b]None of these treatments are proposed within the inner portion of RCAs except for the FR-RCA and WMT treatments.
[c]PFT is not counted in the grand total of treatment acres due to the overlap of treatment acres with many of the vegetation treatments.
[d]Prescribed burn would be allowed to back into inner RCA.

Noncommercial Treatments

Noncommercial Thinning (NCT)—1,369 acres (116 acres in Riparian Conservation Areas [RCAs])

Noncommercial thinning (NCT) would be completed in mature stands and plantations with density-related stress and in mature stands targeted for prescribed burning.

In areas targeted for prescribed fire treatments, NCT would be completed where necessary. Slash produced from NCT would be lopped and scattered or piled (machine or hand) and burned. To

help achieve desired future conditions (DFC), NCT would be permitted within the outer half of RCAs. All NCT in RCAs would be completed by hand and would generally not cut trees larger than 8 inches DBH; the majority of cut material would be lopped and scattered. If piling is needed, slash would only be piled by hand within RCAs and would be approved by the District hydrologist or fisheries biologist.

Within plantations, NCT would be completed to improve wildlife habitat, increase growth rates and tree vigor, improve stand resiliency to natural disturbance, and reduce density-related competition. Plantations targeted for NCT are generally <30 years old and have an average DBH of 8–12 inches. Implementation of NCT would generally cut trees <8 inches DBH and prune residual trees, when practical, up to 6 feet high. Post treatment, these stands would retain approximately 70–100 trees per acre. Thinning would favor early seral species but would retain a mixture of species and variable densities, depending on site-specific objectives. Where reserve trees within plantations receiving this treatment are causing Forest health problems (primarily due to mistletoe [Arceuthobium species]), trees may be killed by girdling. Girdled trees would be marked with wildlife tags as necessary to meet desired snag numbers and sizes.

Treatment intent of NCT:

- Reduce noncommercial tree densities, increase growth rates, improve wildlife habitat, and improve tree vigor.
- Improve stand resiliency to natural disturbance by reducing density related competition.
- Maintain and promote early seral species with variable densities depending upon site-specific objectives.
- Promote spatial heterogeneity in species diversity (i.e., retention of naturally regenerating aspen or other desired species when present), canopy cover, and density.
- Expand the opportunity for prescribed burn by changing the fuel profile.
- Reduce fire severity potential and fuel loading prior to prescribed burning.
- Reduce the potential for undesired fire effects (i.e., mortality of legacy trees).
- Aid in the retention of desired leave trees.

Restoration of Burned Areas / Plantations (BA / PL)—3,229 acres (380 acres in RCAs)

Restoration of burned areas / plantations (BA / PL) treatment would be completed in plantations burned during the Grays Creek Fire. Plantations within this area burned at mixed severities and salvage-harvested areas were replanted following the fire. Many of these plantations have experienced mixed survival; specifically, intermixed patches of dense, moderate, low, and no survival of regeneration occurred. Plantations have had 1-, 3-, and 5-year survival plots and adequate stocking rates; however, due to a combination of drought, herbivory (pocket gophers [Geomyidae]), and dense brush, some of these plantations have experienced increased mortality.

The BA / PL treatments would include NCT, piling (mechanical or hand), and pruning in areas with dense regeneration, brush removal, and replanting in areas with low stocking. The NCT effort would generally cut trees <10 inches DBH and prune residual trees, when practical, up to 6 feet high. No mechanical piling would occur within RCAs, and all hand piling would be approved by the District hydrologist or fisheries biologist.

Treatment intent in dense regeneration areas:

- Reduce noncommercial tree densities, increase growth rates, improve wildlife habitat, and improve tree vigor.
- Improve stand resiliency to natural disturbance by reducing density-related competition.
- Maintain and promote early seral species with variable densities, depending on site-specific objectives.
- Promote spatial heterogeneity in species diversity (i.e., retention of naturally regenerating aspen or other desired species when present), canopy cover, and density.

Treatment intent in brush areas with low stocking:

- Reduce competition to seedlings from brush and grass.

Treatment intent in low stocking areas:

- Meet desired stocking levels.

Commercial Treatments—10,403 acres

Stands would be thinned through commercial logging. Potential harvest systems include ground based, skyline, and / or helicopter. Harvested trees would generally be removed with the limbs and tops attached. The limbs and tops would be utilized as biomass or other products, where practical; in certain units a portion of this material would also be redistributed back into the harvest unit to enhance soil productivity and nutrient cycling. Where appropriate and needed, noncommercial-sized (e.g., <8 inches DBH) trees would be cut to reduce ladder fuels and promote desired advanced regeneration. Following tree harvest, these stands could be underburned as described in the prescribed burn section below. Commercial vegetative treatments have been divided into the categories described below.

Commercial Thin-Free Thin (CT-FT)—2,879 acres (336 acres within the outer half of RCAs)

Commercial thin-free thin (CT-FT) would allow the flexibility to use different thinning methods for varying stand conditions and objectives. The CF-FT would be accomplished by low thinning (removing trees from the lower crown classes), some crown thinning (removing trees from the dominant and codominant crown classes), and occasional sanitation cutting (removing trees to improve stand health by reducing the anticipated spread of insects or disease, especially mistletoe infections). Merchantable material would be removed from the site and utilized as markets allow. Noncommercial material (slash) would be lopped and scattered, mechanically harvested for fuelwood decks, removed, hand piled, machine piled, and / or broadcast burned to reduce fuel loading. No mechanical piling would be allowed within RCAs; hand piling would require approval by the District hydrologist or fisheries biologist. See Appendix 5 for a complete description of requirements associated with RCA harvest.

These treatments would generally be completed in forested areas dominated by mature, vigorous ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), and / or western larch (*Larix occidentalis*) with canopy cover >35%. Approximately, 1.0% of the CT-FT treatment areas would be located in PVG 11 stands and potentially include promoting and maintaining

whitebark pine (*Pinus albicaulis*) (e.g., removal of subalpine fir and artificially regenerating rust-resistant trees).

Following treatment, these stands would be a mosaic of thinned areas, clumps of trees, and small openings. Lower canopy cover (20%–30% post treatment canopy cover) would generally be targeted in PVG 2. Higher canopy cover (25%–40%) would generally be the desired post-treatment condition in PVGs 5 and 6. Portions of stands with natural openings and heavily thinned areas would have less canopy cover, perhaps as low as 10%. These openings would eventually develop more canopy cover where seedlings establish and grow. Following prescribed burning, up to an additional 10%, with an average of 5%, of the overstory trees would be expected to die. The average canopy cover in these stands after harvest and underburn operations would be between 20% and 40%.

This treatment includes the following specifications:

- Legacy western larch, ponderosa pine, and Douglas-fir should be retained. See Appendix 7 for legacy tree identification guidelines.
    - Seral species (western larch, ponderosa pine, quaking aspen (*Populus tremuloides*), whitebark pine, and / or Douglas-fir) should generally be favored for retention over nonseral species (e.g., grand fir [*Abies grandis*] and subalpine fir [*Abies lasiocarpa*]), and preference should be given to retention of larger-diameter trees.
- Nonlegacy trees >20 inches DBH should generally be given retention preference. When these trees must be selected for retention or removal, the following guidelines should be utilized:
    - Give preference to larger-diameter, vigorous, early seral trees for retention.
    - Consider the appropriateness of retaining clumps and / or skips as described below.
        - Dwarf mistletoe that cannot be isolated would cause mid- to long-term forest health issues.
            - Trees with lower mistletoe ratings would generally be favored over heavily infected trees. When possible, trees with mistletoe ratings of 0–3 would be favored over trees with ratings of 4–6. When trees with mistletoe ratings of 4–6 can be isolated (i.e., greater than 40 feet from uninfected host trees) while addressing mid- to long-term stand objectives, these infected trees should be retained to meet wildlife objectives.
        - Give preference to retaining tree(s) exhibiting characteristics of high wildlife value (e.g., cavities, stem rot, broken tops with structure for nesting), even if this results in slightly higher than desired stocking.
        - Consider safety concerns when designating trees for retention / removal, including hazard trees in and / or adjacent to campgrounds, dispersed campsites, and roads / trails open to the public.
        - Consider operational concerns when designating trees for retention / removal, including hazard trees, skid trails, skyline corridors, and landings.

    - In large tree size class (LTSC) stands (generally stands that have 11 or more trees per acre that are ≥20 inches DBH), retain at least 11 20-inch DBH or larger trees per acre. This consideration may require retaining large diameter trees that do not meet the description for preference as described above.

- Retention / removal of nonlegacy late seral species should follow these guidelines:
  - Give preference for retaining late seral species when necessary to meet residual structural objectives (i.e., LTSC and / or old forest characteristics).
    - Generally, give preference to vigorous, healthy, larger-diameter, late seral trees. Preference to retaining late seral tree(s) exhibiting characteristics of high wildlife value (e.g., cavities, stem rot, broken tops with structure for nesting) should also be given, especially when not common in a stand, even if this results in slightly higher-than-desired stocking. These would also be good areas in which to consider skips, as described below.
  - Retain late seral trees >20 inches DBH not meeting merchantability specifications, due to damage, poor form, or indicators of rot, to meet wildlife objectives.
  - Give preference for removing late seral (e.g., grand fir, subalpine fir, and / or Douglas-fir [PVG 2]) trees that are causing direct crown / root competition to large-diameter and / or vigorous western larch and ponderosa pine.
- Creation of clumps (small groups retained with spacing closer than desired spacing specifications), skips (areas with higher densities than specified in the rest of the unit that will not have any trees cut), and gaps (areas where the unit will have a wider average spacing than specified for the rest of the unit) should follow these guidelines:
  - Retain clumps of trees, commercial and noncommercial sized, throughout the harvest area to meet wildlife and visual objectives. These clumps would consist of 2–20 or more trees and should be designed to enhance spatial variability within each given stand.
  - Design skips consistent with the principles identified in Franklin et al. (2013, pp. 81–87). Skips are defined as portions of units not treated mechanically. These skips should not generally exceed 15% of a stand.
  - Create small openings <2.0 acres in areas dominated by grand fir, low-vigor trees, or diseased trees or in areas with a high potential of aspen regeneration. Where aspen are present, conifers could be removed within the aspen stand to improve stand integrity. These openings should not generally exceed 10% of a stand and should consider the following recommendations.
    - Small openings of up to 2.0 acres may be used to stimulate aspen regeneration. In aspen patches, nonlegacy coniferous trees would be removed within 50 feet of the aspen patch. To be considered an aspen patch, an area must have an average spacing of less than 20 feet between stems and be larger than 1 / 10 acre in size.
    - In openings outside of aspen patches, a minimum of 5–10 trees per acre would be retained, with leave tree preference given to legacy trees, vigorous serals (e.g., ponderosa pine, western larch, and aspen) in the dominant and codominant crown classes, and high wildlife value nonlegacy / nonseral species. Secondary preference

would be given to dominant nonseral trees. These openings should rarely be wider than 50–100 feet and be well distributed across the area. Consideration of whether existing openings and the general thinning and burning prescription would create sufficient openings should be taken prior to intentionally creating additional openings. Artificial regeneration may be prescribed in patches between 1.0 and 2.0 acres if no suitable seed trees are present.

- Release legacy ponderosa pine and western larch by removing younger trees for approximately twice the canopy drip line of the legacy tree(s). As discussed earlier, overlap of other legacy tree crowns is acceptable, and these other legacy trees should be retained. Release of replacement / future legacy trees / clumps should also be considered. In addition, retention of replacement trees should be considered if a desirable legacy tree replacement is within this area.

Treatment intent of CT-FT:

- Reduce stand density and increase mean diameter.
- Maintain and promote large tree forest structure and old forest characteristics while restoring the desired species composition and stand densities.
- Release legacy ponderosa pine, western larch, and Douglas-fir by removing younger trees for approximately twice the canopy drip line of the legacy tree(s). Overlap of other legacy tree crowns is acceptable and these other legacies would be retained. Release of replacement / future legacy trees / clumps would also be considered. In addition, retention of replacement trees would be considered if a desirable legacy tree replacement is within this area.
- Promote resiliency, reduce competition, and improve growth rates for remaining trees.
- Improve habitat for wildlife species that require large tree and old forest characteristics with low-to-moderate canopy cover.
- Maintain whitebark pine by reducing density of subalpine fir and artificially regenerating rust-resistant trees.
- Reduce potential for crown fire spread should a wildland fire occur.
- Restore a heterogeneous, fine-scale mosaic pattern.

Free Thin–Patch Cut-Modified Shelterwood (FT-PC-MSw)—5,367 acres (971 acres would occur within the outer half of RCAs. Only free thinning would occur within the outer half of the RCAs unless aspen are present.)

This treatment would be implemented primarily in PVGs 6, 7, 9, 10, and 11, which have evidence (e.g., relic trees, stumps, snags) of previously having an early seral tree species (e.g., aspen, whitebark pine, ponderosa pine, western larch, and / or Douglas-fir) component. Approximately 0.1% of the Free Thin–Patch Cut-Modified Shelterwood (FT-PC-MSw) treatment area is PVG 11 and potentially has whitebark pine present. Merchantable material would be removed from the site and utilized as markets allow. Noncommercial material (slash) would be lopped and scattered, mechanically harvested for fuelwood decks, removed, hand piled, machine piled, and / or broadcast burned to reduce fuel loading. No mechanical piling would be allowed within RCAs; hand piling would require approval by the District hydrologist or fisheries

biologist. See Appendix 5 for a complete description of requirements associated with RCA harvest.

Implementing patch cuts would allow for regeneration (i.e., patch cut with reserves ranging from 3.0 to 10.0 acres, generally on less than 50% of a stand). In patch cuts, approximately 0–9 trees per acre would be retained as reserve trees. The patch would be either naturally or artificially regenerated after treatment. Unless the stand is predominately lodgepole pine (*Pinus contorta*) and the intent is lodgepole pine regeneration, these stands would only be naturally regenerated. In modified Shelterwood / Seedtree treatment areas (i.e., <40 acres) approximately 10–25 trees per acre would be retained as reserve trees and artificial or natural regeneration would be used to meet objectives.

Reserve tree preference would be legacy trees, replacement legacy trees, high-value wildlife trees (i.e., cavities, broken tops with structure for nesting), dominant nonserals, and healthy, vigorous serals in any crown class.

In portions of stands with an early seral component still remaining, free thinning or modified Shelterwood would be implemented. Free thin treatment would occur as described above. Portions of each stand (approximately 5–10%) not meeting the criteria for patch cuts, modified Shelterwood, or free thinning would not receive commercial treatment during this entry (e.g., skips).

Following treatment, these stands would be a mosaic of thinned areas, clumps of trees, and small openings. Canopy cover in thinned areas would average 10–30%; canopy cover could be over 40% in untreated areas. Canopy cover in created patch cuts would generally be 0–10% and less than 10 acres in size. Following prescribed burning, up to an additional 30% but an average of 10% of the overstory trees would be expected to be killed. The average canopy cover in these stands following harvest and underburn operations would be between 15% and 40%.

Treatment intent of FT-PC-MSw:

- Restore a heterogeneous fine- and landscape-level scale mosaic pattern by establishing varying patch sizes consistent with spatial patterns that improve forest resilience to disturbance.
- Retain and remove portions of stands that historically would not have been dominated by early seral species as clumps, skips, and gaps.
- Maintain early seral species in microsites.
- Reduce stand density and increase mean diameter.
- Maintain and promote large tree forest structure and old forest characteristics while restoring the desired species composition and stand densities.
- Release legacy ponderosa pine, western larch, and Douglas-fir by removing younger trees for approximately twice the canopy drip line of the legacy tree(s). As discussed earlier, overlap of other legacy tree crowns is acceptable and these other legacies would be retained. Release of replacement / future legacy trees / clumps would also be considered. In addition, retaining replacement trees would be considered if a desirable legacy tree replacement is within this area.
- Promote resiliency, reduce competition, and improve growth rates for remaining trees.

- Maintain whitebark pine by reducing density of subalpine fir and artificially regenerating rust-resistant trees.
- Improve habitat for wildlife species that require large tree and old forest characteristics with low-to-moderate canopy cover.
- Promote and maintain willows (*Salix* species) in PVGs 7, 9, 10, and 11.
- Reduce potential for crown fire spread should a wildland fire occur.

Commercial Thin / Mature Plantations (CT-MP)—1,070 acres (168 acres in the outer half of RCAs)

This treatment would be applied to stands that were previously artificially regenerated (plantations). These stands are typically >30 years old and were planted predominately with ponderosa pine, Douglas-fir, and / or western larch. These mature plantations contain commercial trees with an average DBH >10 inches and would typically average approximately 70–80 trees per acre (which would generally result in crown spacing of 10–15 feet) after thinning. Thinning would generally favor retaining larger, early seral trees and be completed to create stands with variable densities while promoting a mix of desired species. Merchantable material would be removed from the site and utilized as markets allow. Noncommercial material (slash) would be lopped and scattered, mechanically harvested, hand piled, machine piled, and / or broadcast burned to reduce fuel loading. The cost of slash treatment, coarse woody debris (CWD), and fuel loading would be considerations in determining the method of noncommercial material treatment. No mechanical piling would be allowed within RCAs; hand piling would require approval by the District hydrologist or fisheries biologist. See Appendix 5 for a complete description of requirements associated with RCA treatments.

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

Treatment intent of Commercial Thin / Mature Plantations (CT-MP):

- Promote large tree forest structure while restoring the desired species composition and stand densities.
- Promote spatial heterogeneity in species diversity (i.e., retention of naturally regenerating aspen or other desired species when present), canopy cover, and density.
- Reduce stand density and increase mean diameter.
- Promote resiliency, reduce competition, and improve growth for remaining trees.
- Reduce potential for crown fire spread in the event of a wildland fire.

Conifer Removal in Aspen Stands (CT-ASP)—1,087 (181 acres within the outer half of RCAs or adjacent to seeps and springs)

This treatment would be implemented in forest types with evidence (e.g., relic early seral trees, stumps, snags) of previously having a dominant aspen overstory. The treatment would occur in stands that still have a dominant component of aspen present. To be considered an aspen patch, an area must have an average spacing of <20 feet between stems and be larger than 1/10 acre in

size (not dependent on age class). Merchantable conifers would be removed from the clone and utilized as markets allow (if within an RCA, PDFs and Appendix 5 requirements would be met). Noncommercial material (slash) would be lopped and scattered, mechanically harvested for fuelwood decks, removed, hand piled, machine piled, and / or broadcast burned to reduce fuel loading. No mechanical piling would be allowed within RCAs; hand piling would require approval by the District hydrologist or fisheries biologist. See Appendix 5 for a complete description of requirements associated with RCA harvest.

Following treatment, these stands would be a mosaic of thinned areas, clumps of trees, and openings around aspen clones. The average canopy cover in these stands after harvest and underburn operations would be between 15% and 40%. Conifer canopy cover within and adjacent to aspen clones would generally be reduced to less than 25%.

Treatment intent of Conifer Removal in Aspen Stands (CT-ASP):

- Reestablish aspen stands where they have departed from desired conditions as described in Campbell and Bartos (2000). The CT-ASP would generally remove all conifers. Potential exceptions for retention include legacy ponderosa pine, western larch, and Douglas-fir. Conifers within 100 feet of the south and west edges of aspen stands and within 50 feet on the north and east edges of aspen stands would be removed. Whole tree yarding would be used to limit slash concentrations within the aspen stands. If slash levels exceeded quantities that would allow effective prescribed burning, excess would be hand piled in the outer half of RCAs and burned. To initiate suckering of the root system, units would be burned; additionally, aspen may, in limited cases, be girdled or felled when other treatment options have failed. Active ignition for the prescribed burn would occur within the RCA where Soil, Water, Riparian, and Aquatic (SWRA) resource conditions would be maintained or improved.
- Establish varying patch sizes and densities (using FT-PC-MSw treatments as described above) consistent with spatial patterns created by historical fire regimes in areas adjacent to aspen clones. Retain portions of stands that historically would not have been dominated by early seral species as skips.
- To ensure that aspen are restored in riparian areas, both commercial harvesting and hand treatments (including girdling, NCT, and felling conifer trees) may occur within the outer half of RCAs and adjacent to seeps and springs. No equipment would be permitted within perennial or intermittent RCAs or within 30 feet of seeps and 120 feet of springs (see Appendix 5 for definition of seep vs. spring). Location and treatment type within RCAs, seeps, and springs would be determined on a site-by-site basis. In some locations near seeps and springs, fencing may be needed to protect aspen and soils during recovery, and this would be determined on a site-specific basis.

Additional Vegetation Treatments—6,679 acres

These treatments would include a combination of commercial logging, NCT, and prescribed burning. Treatment areas would be those with unique characteristics (e.g., geography, hydrology, geomorphology, and species composition) that make treatment highly variable from stand to stand. Potential commercial harvest systems include ground based, skyline, and / or helicopter. Harvested trees would generally be removed with the limbs and tops attached. The limbs and

tops would be utilized as biomass or other products, where practical. Where appropriate and needed, noncommercial-sized (i.e., <8 inch DBH) trees would be cut to reduce ladder fuels and promote desired species composition. Following treatment, these stands could be underburned as described in the prescribed burn section below. These additional vegetative treatments have been divided into the categories described below. As with other vegetation treatments described, no equipment would be permitted within perennial or intermittent RCAs or within 30 feet of seeps or 120 feet of springs.

Vegetation Treatments in Stands with Low Site Quality (LSQ)—947 acres (169 acres within the outer half of RCAs)

These stands typically have stocking rates not conducive to commercial harvest; however, in many cases restoration needs exist in overstocked forested pockets. In many of these stands, an early seral species component is being affected by increased ladder fuels and insect / disease issues. Approximately 5% of the LSQ treatment areas occur in PVG 11 and potentially in stands containing whitebark pine. Thinning (commercial and noncommercial), piling (machine or hand), and prescribed fire treatments are proposed in timber stands with lower densities. No mechanical piling would be allowed within RCAs; hand piling would require approval by the District hydrologist or fisheries biologist. These stands generally will not contribute to the Allowable Sale Quantity (ASQ).

Treatment intent of LSQ:

- Maintain legacy trees while reducing stand densities and ladder fuels.
- Restore natural fire disturbance regime to improve understory plant diversity and vigor and provide habitat for native species.
- Move the Project area toward a prefire suppression vegetative condition related to stand density, tree size class, and species composition to enable the reintroduction of fire into a fire-adapted ecosystem.
- Maintain whitebark pine by reducing density of subalpine fir and artificially regenerating rust-resistant trees.
- Promote resiliency and reduce competition for remaining trees.

Commercial and Noncommercial Thinning within Nonforested (dry and wet) Stratum

Nonforested stratum includes nonforested areas and wet meadow areas typically incapable of supporting more than 10% stocking rates of conifers. Thinning (commercial and noncommercial) and prescribed fire treatments are proposed in these areas to address Forest Plan Objective 0325 for the Weiser River MA, which states, “Maintain and promote native grasses and aspen where they occur…” (USDA Forest Service 2003b). Approximately 4,519 acres will be treated with noncommercial treatments and 55 acres with commercial / noncommercial treatments. These stands generally will not contribute to the ASQ.

Nonforested Treatment (NFT)—4,944 acres (432 acres within the outer half of RCAs)

The Nonforested Treatment (NFT) areas include grasslands, sagebrush, scablands, and dry meadows. Fire exclusion has led to an expansion of young conifers along the edges and a decadency of upland shrubs, grasses, and forbs. Treatment of encroaching conifers includes a

combination of felling, skidding, and lop and scatter or hand piling, followed by burning. No mechanical piling would be allowed within RCAs; hand piling would require approval by the District hydrologist or fisheries biologist. The remaining dry meadow complexes may be treated with prescribed fire.

Since the conifer encroachment is generally concentrated along the nonforested edge, it is expected that only 40% of each nonforested treatment area would need hand thinning and piling. Conifer canopy cover within nonforested treatment areas would generally be reduced to less than 10%. Prescribed fire treatment may occur throughout the entire treatment type.

Treatment intent of NFT:

- Restore natural fire disturbance regime in dry meadows to enhance upland meadow species, increase meadow acreage, improve plant diversity and vigor, and provide habitat for native species.
- Move the Project area toward a prefire suppression vegetative condition related to stand density, tree size class, and species composition to enable the reintroduction of fire into a fire-adapted ecosystem.

Wet Meadow Treatment (WMT)—315 acres (all within the inner and / or outer half of RCAs)

The Wet Meadow Treatment (WMT) areas include wet meadows, many of which have higher tree densities and reduced riparian vegetation within the Project area. The preferred approach is to treat wet meadows in one entry using a combination of mechanical treatment or hand treatment followed by prescribed burn. Treatment prescriptions for wet meadows would be designed with input from the District wildlife biologist, hydrologist, and soil scientist.

Equipment would not be allowed within 30 feet of seeps, 120 feet of springs, or anywhere on hydric soils. Treatment would be limited to the outer half of these RCAs. In some locations near seeps and springs, fencing may be needed and this would be determined on a site-by-site basis. Conifer canopy cover within and adjacent to wet meadows will generally be reduced to less than 10%.

Treatment intent of WMT:

- Restore physical and biological (terrestrial and aquatic diversity and abundance) and ecological meadow processes (evapotranspiration) and functions (flow dispersal, ground water recharge, and sediment retention) appropriate for the current climate regime and comparable to reference conditions, and offer resiliency to future climate regimes by restoring functional processes.
- Restore fire in wet meadows to enhance riparian habitat for native riparian-dependent species, increase meadow acreage, improve plant diversity and vigor, provide habitat for native species, increase water availability for wetland species, and provide wetter conditions for a longer duration each year.
- Provide diverse wildlife habitat for native riparian-dependent species.

Proposed Vegetation Treatments within RCAs—3,162 acres

As described above, thinning and prescribed fire treatments are proposed in RCAs to maintain upland vegetation within the desired conditions. These acres are not additional acres of proposed treatment and are accounted for in the treatments listed above. The RCA treatments would apply to nonriparian vegetation in the outer half of RCAs and would move more vegetation toward DFCs as described in the Forest Plan (USDA Forest Service 2003a, pp. III-30, A-15 and III-131; Objectives 0325 and 0326). Appendix 5 of this document describes in detail PDFs and requirements for RCA treatments.

Shaded Fuelbreak (SFB)—458 acres (83 acres in outer half of RCAs)

The shaded fuelbreaks (SFBs) would be created using existing NFS roads (50186, 50206, and 51763) and terrain features on approximately 370 acres to provide areas to control large or emerging fires in a safe manner for firefighters and also protect the values to the east of the Project (Tamarack Ski Area and structures in this area) and other private lands. This treatment would involve reducing crown closure, 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 0 to 500 feet wide, depending on fuel type, site slope, and the risk level associated with protecting improvements and increasing firefighter safety.

As with the prescribed fire treatments described above, prescribed burning would, with the approval of the District hydrologist or fisheries biologist, be directly applied to portions of the RCAs within the SFB and allowed to back in other portions. Active ignition would occur within the RCA only where soil and water resource conditions would be maintained or improved.

Thinning (commercial and noncommercial), piling (machine or hand), and prescribed fire treatments are proposed in SFBs.

Treatment intent of SFB:

- Increase fire fighter safety.
    - Provide protection for values at risk (wildland-urban interface [WUI], private land, past investments).
- Maintain legacy trees while reducing stand densities and ladder fuels.
- Promote resiliency and reduce competition for remaining trees.

Fuel Reduction within Riparian Conservation Area (FR-RCA)—15 acres

The Fuel Reduction within Riparian Conservation Area (FR-RCA) would occur within approximately 0.5 mile of a stream corridor or on about 15 acres within an RCA near the junction of two open NFS roads (50186 and 50206). Location of the FR-RCA treatment area was based on location of the SFB, proximity to county-maintained road 50206, and presence of high conifer density and fuel loading in the RCA understory. Within this defined location, RCA treatments would occur within the inner RCAs but would not occur within 15 feet of the stream channel; treatments would include understory / overstory thinning and prescribed burning. Treatments would be done by hand, remove less than 40%–50% of the canopy cover, and be developed in consultation with the District fisheries biologist and / or hydrologist to ensure that streambank stability, LWD recruitment, stream shade, and ground cover are addressed and

riparian functions are maintained or improved as required by Forest Plan SWST10 (USDA Forest Service 2003a).

Treatment intent of FR-RCA:

- Reduce fuel loading within RCA boundaries where they intersect with fuelbreaks.
- Improve firefighter safety (ingress and egress via the adjacent NFS roads) by reducing fine- and ladder-fuel loading.
- Create a gradual transition between the treated upland and the stream channel, which would move treated stands toward desired conditions in Appendix A of the Forest Plan (USDA Forest Service 2003a) and increase the likelihood of achieving desired effects from prescribed burn operations.

Prescribed Fire Treatments (PFT)—27,200 acres (7,386 acres within RCAs)

Proposed Prescribed Fire Treatments (PFT) would occur on approximately 27,200 acres over the next 15–20 years. Commercial activities would generally be completed prior to applying fire. Reintroducing 500–10,000 acres of fire annually for the next 15–20 years would move forested and nonforested vegetation towards conditions that more closely represent DFCs.

Primary target areas (9,400 acres) for treatment consist of stands with historically high fire frequencies and lower severities (grasslands and stands dominated by seral species such as ponderosa pine, Douglas-fir, and western larch). Secondary target areas (14,800 acres) include stands with historically moderate fire frequency and mixed severities stands comprised of both seral and nonseral species (i.e., grand fir).

A mosaic-like application of fire would reintroduce fire to approximately 75% of treated primary targeted acres and 50% of treated secondary targeted acres. All acres targeted for fire application would be available for NCT in order to minimize mortality from prescribed burning and aid in moving towards DFCs. Only those acres identified for vegetation treatments within RCAs would be included in the acres available for NCT.

Fire would only be applied to nontarget areas to minimize fire intensities and severities. These stands comprise young plantations, stands of historically low frequency and high severities, and stands set aside for other resource concerns or objectives (e.g., wildlife cover). Approximately 20% of nontarget acres located within the proposed burning areas would be expected to receive fire through backing (low-intensity fire spread without additional lighting). This minimal fire spread would not alter overall stand conditions within the nontarget areas.

Prescribed burning would be used to reduce fuel loads and rejuvenate vegetation. 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 natural fire (Swanson et al. 2010). In the past, fire killed encroaching conifers and induced aspen root sprouting. After treatment, these areas would appear more open.

Existing barriers to fire spread (barren ridgelines, roads, and trails) would be used where possible to contain prescribed burns within specified boundaries. In areas where existing barriers are insufficient to control fire spread, handline would be constructed. Hand-constructed fireline would be limited to use only where necessary. The integrity of existing trails and roads would be

considered in the application of fire, and damage caused by these actions would be repaired. Constructed fireline would be rehabilitated after use.

Fire would be ignited by hand or aerially. Prescribed burning operations may occur from early spring to late fall. Fire may be applied to tree wells in winter or early spring to reduce fuel accumulation and to reduce the potential for tree mortality during regular broadcast burning. Maintenance burning (burning after initial application of fire) would occur every 5–10 years to maintain DFCs in high-frequency fire regimes. Prescription parameters (wind speed, fuel moisture, smoke dispersion, and other resource area objectives) would influence burn opportunities. Active ignition for the prescribed burn would occur within the RCA where SWRA resource conditions would be maintained or improved and where approved of in advance by the District hydrologist and / or fisheries biologist. Active ignition within riparian vegetation would not occur, but fire would be allowed to back in RCAs.

All burning would follow Forest Plan Standards and Guidelines (USDA Forest Service 2003a) and adhere to national and State air quality regulations. Specific conditions under which burning would occur would be developed through a prescribed burn plan prior to ignition.

Associated Actions

A number of activities associated with implementing these vegetation treatments are necessary.

Road Maintenance—Road maintenance includes work on open and closed NFS roads and the following activities, dependent on designated maintenance level (ML): surface blading, culvert and ditch cleaning, removal of encroaching brush, installation of drivable dips or water bars, culvert installation and replacement, culvert removal and crossing stabilization, cut and fill stabilization, and surface replacement. This maintenance would occur on NFS roads used by the Project, both those open for public and / or administrative use, including seasonally open roads, and those designated for long-term storage (ML 1). Approximately 137.5 miles of roads are proposed for maintenance.

Temporary Roads—Temporary roads are defined as roads authorized by contract, permit, lease, other written authorization, or emergency operation that are not intended to be part of the Forest transportation system; that are not necessary for long-term resource management; that are not forest roads or forest trails; and that are not included in a forest transportation atlas. Both planned and incidental temporary roads would be utilized and obliterated after Project implementation. Planned temporary roads are defined as routes identified during the planning process and depicted on Project maps. Some of the planned temporary roads would be newly constructed; however, most of the planned temporary roads have existing roadbeds (unauthorized routes) in place. Up to 9.7 miles of planned new and 34.8 miles of existing unauthorized routes would be used as temporary roads and obliterated after use. Incidental temporary roads are roads needed to complete vegetation treatments but cannot yet be identified due to the level of site-specificity necessary. These incidental temporary roads would be preferentially located on existing roadbeds (unauthorized routes) where possible and be obliterated when logging is completed. Incidental temporary roads would require approval by resource specialists prior to construction and would be limited to 7 miles or less of temporary road (not on an existing roadbed) throughout the Project area.

Harvest Residue Management—Management of forest residues may include machine and hand pile burning, mastication, residue recycling via fuelwood and within-unit residue redistribution, broadcast / underburning, lop and scatter, and removal for biomass or biochar for energy.

Site Preparation—After harvest activities are completed, but prior to planting in proposed areas, site preparation may be completed to reduce competition to seedlings from brush and grass. All site preparation activities would be consistent with wildlife and SWRA resource requirements, specifically detrimental disturbance and CWD.

Planting—Planting of ponderosa pine, rust-resistant whitebark pine, western larch, Douglas-fir, and / or Engelmann spruce (*Picea engelmannii*) seedlings on all proposed regeneration treatments would be completed as necessary to meet desired stocking levels. The species mix would depend on elevation and site conditions.

Firewood Availability—Areas and roads currently closed and used for timber harvest would be evaluated for firewood retrieval, including firewood decks. These areas may be made available for public use for a limited time period. The NFS roads currently closed may be opened for a limited time to the public in the summer for firewood retrieval if resource objectives are met and the road has a minimum of 10 cords of firewood available. Snags identified for retention to meet wildlife habitat needs would be tagged as not to be cut. Roads in long-term closure would not be opened. Areas not meeting the minimum number of snags as defined in the Forest Plan (USDA Forest Service 2003a) would not be opened.

Watershed Improvement and Restoration Treatments

The *Selected Alternative* would include watershed improvements that would improve watershed function and resiliency by minimizing the impact of the road and trail network throughout the Middle Fork Weiser River subwatersheds and restoring vegetation and soil productivity in riparian areas. Treatments include road and trail decommissioning, improvements, and reroutes; dispersed recreation site improvements within the Middle Fork Weiser River RCA; and vegetation treatments designed to restore or enhance native riparian vegetation through mechanical or hand treatment, prescribed burning, and planting and seeding (Table ROD-4).

Table ROD-4. Soil, water, riparian, and aquatic (SWRA) resource improvement treatment summary.

Type of Treatment	Miles and Number
Long-term Closure	19.3 miles
Road Decommissioning	76.1 miles
National Forest System Road Decommissioning	16.0 miles
Unauthorized Route Decommissioning	60.1 miles
Total Road Decommissioning in Riparian Conservation Areas	23.4 miles
National Forest System Road Decommissioning	7.1 miles
Unauthorized Route Decommissioning	16.3 miles
Aquatic Organism Passage / Habitat Connectivity	2 culverts

Since impediments to watershed function, such as road density and disturbance in RCAs, are present in relatively equal proportions within each subwatershed, the higher the percentage of NFS land, the greater the immediate opportunity to restore the subwatershed to DFCs, as stated in the Purpose and Need section.

Road treatments proposed for this Project were developed using the Travel Analysis Process (TAP) conducted in 2013 (USDA Forest Service 2013a). Changes to the NFS road network are proposed to reduce road-related impacts to water quality and fish habitat, as well as reduce overall road density and comply with the Travel Rule (36 CFR Parts 212, 251, 261, and 295 2005) requirement of establishing an MRS.

Roads that are recommended to remain on the landscape as part of the MRS would be maintained and improved to reduce sediment production (guided by recommendations from site-specific sediment modeling). Aquatic Organism Passage (AOP) would be improved at two crossings as described below. The NFS roads not needed for future management or access and unauthorized routes are identified for decommissioning.

The NFS road treatments proposed throughout the Project area include maintenance and / or improvement (see “Transportation Management” section below).

Long-term Closure of Roads—19.3 miles

The NFS 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) and / or were field surveyed due to their proximity to streams or stream crossings and found to be inhibiting proper stream or watershed function and were identified as unneeded for a period of at least 30 years would be put into long-term closure for a total of 19.3 miles. To improve the condition of these roads, work includes scarifying (if needed), installing cross-ditches, removing or bypassing culverts and establishing vegetation at stream crossings, and blocking or recontouring the entrance. This would both reduce impacts on watershed function and save road maintenance funds, enabling maintenance-free storage of the road.

Road Decommissioning—76.1 miles

Decommissioning treatments proposed range from full recontour to spot treating isolated areas, such as stream crossings, on roads that have little-to-no defined prism and have recovered based on the professional judgment of the District hydrologist or soil scientist to a point where features blend with the surrounding terrain and hydrologic and soil functions are largely restored. Natural recovery is not a common occurrence, and usually these “recovered roads” are legacy, nonengineered skid trails or temporary roads that were never recontoured following past management activities. Roads that were engineered (prism and drainage structures) largely require treatment to restore natural physical and biological processes (Lloyd et al. 2013).

Roads identified for decommissioning that were also recognized during planning as needed for administration of grazing permits (i.e., as stock driveways or access to range improvements) would be treated to allow passage of cattle and provide for other necessary grazing permit activities but 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 unauthorized use, which 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 roads are identified in the Project data, and final actions would be determined during implementation.

Approximately 76.1 miles of road would be decommissioned, including 16.0 miles of NFS roads and 60.0 miles of unauthorized routes. A total of 23.4 miles of routes proposed for decommissioning are located within RCAs.

Aquatic Organism Passage (AOP) / Habitat Connectivity

Two culverts that restrict proper hydrologic function and passage of fish and other aquatic organisms would be replaced:

1) NFS road 50186 at the Middle Fork Weiser River near the junction with NFS road 50245
2) NFS road 50186 at Big Creek

Temporary culverts or bridges would be installed where planned temporary roads cross intermittent or perennial streams or on closed system roads where culverts have been removed. Where needed, AOP would be provided.

Transportation Management

All road miles are approximate and based on field and GIS data.

Five sources of material are identified in the *Selected Alternative* and would be used for road improvement.

Road Reconstruction—16.6 miles

Road reconstruction in the Project area includes any activity that improves or realigns an existing NFS road as defined below:

- Road improvement—Activity that results in an increase of an existing road's traffic service level expansion of its capacity or a change in its original design function.
- Road realignment—Activity that results in a new location of an existing road or portions of an existing road and treatment of the old roadway.

Road Improvement

Approximately 16.6 miles of road resurfacing would be completed on NFS road 50214 (King Hill–Fall Creek Road), NFS road 50245 (Granite Creek Road), and NFS road 50692 (Little Creek Road) using crushed rock sources to improve the road surface and reduce watershed and fisheries impacts from sedimentation. Road reconstruction within RCAs totals 5.5 miles.

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

<u>Road Realignment</u>

To reduce sediment and other road effects on water quality and riparian habitat, 3.0 miles of existing NFS road would be realigned away from RCAs; 2.2 miles of road would be constructed in the realignment for a net decrease of 0.8 mile of road. Roads to be realigned include segments of the following NFS roads: 50489, 50566, 50707, 51547, and 51791.

Other Road Actions

Implement Best Management Practices (BMPs)

Approximately 5.5 miles of NFS road that are currently ML 1 would have Best Management Practices (BMPs) implemented. These are roads that were designated as 1 in the past but where BMPs were never implemented (i.e., culverts are still in place; prisms, cuts, or fills are unstable). These ML BMPs are designed to ensure the road can be stored, with minimal maintenance, for a period up to 30 years. Treatment would include removing culverts, installing water bars to ensure surface drainage, outsloping, or other treatments that would reduce sediment transport from the road and preserve the integrity of the road prism for future use.

Maintenance Level (ML) 1 to ML 2 Roads

Approximately 14.2 miles of NFS road that are currently ML 1 would be converted to ML 2 and would remain closed to public travel. These are roads that currently have easements for access by DF Development LLC. Converting the roads to ML 2 would allow for maintenance while providing private access. The BMPs required to put these roads into long-term storage consistent with the ML 1 designation were never implemented, so this ML 1 to ML 2 conversion will not result in "undoing" treatments like restored stream crossings, waterbars, or cut and fill stabilization on the ground. Physical closure would be ensured through maintenance or installation of gates or other physical barriers.

Ensure Effective Closure on Year-round and Seasonally Closed National Forest System (NFS) Roads

If needed, closed NFS roads would be improved to ensure effective closure through the use of gates (ML 2 roads only), barriers, or obliterating the first portion of the road (generally the line of sight distance from the start of the road to where it turns out of view; this applies to ML 1 roads only). Ensuring effective closures may also be implemented in ongoing road maintenance activities.

Minimum Road System

The Travel Analysis Process (TAP) for the Middle Fork Weiser River was completed by the District in 2013 (located in the Project record) and determined the risk and benefit of each road in the Project area. The *Selected Alternative* is a good balance of road decommissioning, realignment, reconstruction, and roads added to the system to improve watershed resources while maintaining an adequate road system that provides access to the Forest for the public and for future restoration and management activities (Table ROD-5). It follows the recommendations from the 2013 Middle Fork Weiser River TAP and is refined through analysis in the FEIS. A discussion of how resources are affected by the MRS described in the *Selected Alternative* is included in each resource section of Chapter 3 of the FEIS. The MRS will consist of 139 miles of NFS road while less than 2 miles of unauthorized road will exist in the Project area.

Table ROD-5. Selected alternative summary of road treatments. (Note: Figures were rounded to the nearest whole number, so totals may differ.)

Road Treatments by Subwatershed	Subwatershed					Total
	East Fork Weiser River	Granite Creek	Jungle Creek	Little Fall Creek	Mica Creek	

National Forest System Road (MRS)	2	38	34	26	38	**139 miles**
Remaining Unauthorized Routes	<1	<1	<1	<1	<1	**2 miles**
System Road Decommissioning	0	8	1	4	3	**16 miles**
Move to Long Term Closure *(Currently closed to the public)*	0	9	<1	2	3	**14 miles**
Aquatic Organism Passage Improvements	0	1	1	0	0	**2 culverts**
Unauthorized Route Decommissioning	0	28	11	16	20	**60 miles**
Unauthorized Routes Used as Temporary Roads[a]	3	5	0.5	4.5	2	**40 miles**
Road Realignment	0	2	<1	1	1	**4 miles**
Add to System Roads	0	2	<1	1	<1	**4 miles**

[a]All unauthorized routes used as temporary roads will be decommissioned after use. This figure does not represent an addition to the total of unauthorized route decommissioning.

Recreation Improvements

The recreation improvements and actions of the *Selected Alternative* are summarized in Table ROD-6. The specifics of these improvements and actions are displayed in Figure ROD-2. The PDFs for all recreation improvements are found in FEIS Table 2.4-10 and ROD-Attachment 1.

Table ROD-6. *Selected Alternative* summary of recreation improvements.

Recreation Improvements	Unit
Vault toilet installation (Cabin Creek Campground and Horse Cabin Flat Dispersed site)	2
Kiosks and fee tube installed (Cabin Creek Campground)	1
Campground accessibility improvement (tables, paths, and loop)	1
Dispersed site development on decommissioned roads	up to 20
Improved existing dispersed campsites	2
Trailhead construction and relocation (Trail # 198 and # 209)	2
Miles of trail maintenance	28
Miles of nonmotorized trail changed to motorized	2
Miles of new nonmotorized trail	0.8
Miles of road converted to trail open to all motorized vehicles	3.4
Change in overall miles of motorized access	+ 5

The *Selected Alternative* includes improvements at one developed campground, dispersed camp site improvements, trail maintenance, minor trail realignments, trail reestablishments, and trail construction to realign trails around private land. Work would focus on trails on the east side of Council Mountain that are located in the headwaters of main tributaries to the Middle Fork Weiser River. Trailhead development off private land is also proposed to better accommodate recreational use of these trails.

The *Selected Alternative* includes the following recreation improvements:

Developed and Dispersed Recreation Improvements

Cabin Creek Campground would be improved as follows:

- Install one single vault toilet to replace the old existing one and relocate the new toilet to meet all required health and safety codes.
- Add new site markers to individual campsites, replace an existing fee tube and information kiosk, install accessible tables, and build an accessible pathway to the water system.
- Gravel the main campground loop road and widen the road and turn at the campground access to accommodate full-size recreational vehicles.

The Horse Cabin Flat dispersed site would be improved by installing hitch rails, designating up to five camping sites with metal fire rings using boulders, installing gravel and site signs to mark the allowed camping locations, and adding a single vault toilet.

The crossing of the Middle Fork Weiser River at the dispersed camping area near the confluence with Jungle Creek would be hardened for stock use and to minimize resource damage and focus motorized access to the existing bridge approximately 300 feet from this crossing. Other general improvements would be made to the site, such as reducing in size and hardening campsites and providing physical barriers to direct use in order to minimize impacts to the adjacent Middle Fork Weiser River.

Roads identified for decommissioning located at the intersection with NFS open or seasonally open roads would be evaluated for site-specific dispersed recreation opportunities within 300 feet of the NFS road junction if no resource concerns are identified.

The Forest Service will evaluate sites for motorized access via both spur road (see above, by leaving 300 feet or less of a decommissioned road as dispersed site access) and walk-in access from the main road. Because nonmotorized dispersed recreational opportunities may be decreased, the Forest Service will evaluate a reasonable number of spurs and dispersed campsites specifically for walk-in sites, as resource conditions allow. For walk-in sites, the access route may be narrowed from a width of 14 to 16 feet to hiking trail standards or some intermediate width, based on on-site conditions.

Trail Improvements

The south portion of NFS trail 198 (4.4 miles) would be rerouted to avoid sections currently on private land with no easement held by the Forest Service to provide legal access to this trail. A new trailhead would be established on NFS land near Cabin Creek Campground for NFS trail 198.

Motorized use is currently present and allowed within the Council Mountain Inventoried Roadless Area (IRA). To accommodate continued two-wheel motorized access on the entirety of NFS trail 198, the designation of a short section (2.0 miles) of the trail would be changed from nonmotorized to two-wheel motorized use.

Trail maintenance (including proper signing) would be performed to bring all 28 miles of existing open designed trail to trail class and standard, as defined in the Trail Management Objective (TMO) (TMOs for each trail are found in the Forest Service - Payette National Forest Trails database called INFRA Trails) for that trail, within the Project area. Maintenance levels

would vary from routine to heavy, depending on the trail condition and trail class. The NFS trail 518 would need to be reestablished / reconstructed in several sections.

Approximately 0.8 mile of former NFS trail 202 would be signed and formally designated as open for nonmotorized use. This trail would be designated as NFS trail 212 and is referred as NFS trail 212 in this FEIS. For this trail, switchback construction would be needed to mediate the steep sections. This is the only action proposed in the East Fork Weiser River subwatershed.

The trailhead for NFS trail 209 (an all-terrain vehicle [ATV] trail) would be relocated onto NFS lands. The map would need to be corrected to coincide with the actual trail location. The designation of NFS trail 209 would be changed from “open year round” to “seasonal” to coincide with other seasonal trail and road designations in the immediate area.

Portions of NFS trail 198 (not to exceed 1.0 mile) would be rerouted near the base of Council Mountain to reduce resource impacts and improve sustainability. Work would also need to be done to reduce congestion of multiple trail junctions in this sensitive upper-elevation trail network.

Approximately 3.4 miles of the West Mountain Jeep Road NFS road 51763 would be converted from Level 2 open road to a trail open to all vehicles to better reflect the type of motor vehicle use this route can accommodate. This change would add 3.4 miles of trail to the NFS trail system.

Council Mountain and Poison Creek Inventoried Roadless Areas

The following activities are proposed for the Council Mountain and Poison Creek IRAs (These miles are included in those described in previous sections and not additional proposals):

- Sign and formally designate 0.8 mile of NFS trail 212 as open for nonmotorized use. Complete needed switchback trail construction to mediate the steep sections.
- Reroute the south portion of NFS trail 198 (2.3 miles located in the IRA) and the east portion of NFS trail 205 (1.5 miles located in the IRA) to avoid sections currently on private land with no easement held by the Forest Service to provide legal access to these trails.
- Reroute portions of NFS trail 198 near the base of Council Mountain to reduce resource impacts and improve sustainability. Work to reduce congestion of multiple trail junctions in this sensitive upper-elevation trail network.
- Motorized use is currently present and allowed within the Council Mountain IRA. To accommodate continued two-wheel motorized access on the entirety of NFS trail 198, change the designation of a short section (2 miles) of the trail from nonmotorized to two-wheel motorized use.
- Full obliteration would occur on 10 segments (1.0 mile) of unauthorized route.
- Trail maintenance would occur on 15 miles.

Council Mountain Research Natural Area (RNA)

No activities are proposed in the Council Mountain RNA.

Project Activity Sequencing

Implementation of the Project is expected to begin in 2017 and last approximately 10 years, with the exception of prescribed fire activities, which are anticipated to be implemented over approximately 20 years. In general terms, activities associated with vegetation management will be completed first, followed by prescribed burning and road decommissioning and / or closures. Activities not associated with vegetation treatments, such as aquatic organism passage improvements and recreation improvements could take place as soon as early fall of 2017.

Changes between the Draft and Final EIS

In addition to minor edits and corrections to the DEIS, a new alternative (Alternative 5) was developed and analyzed in preparing the FEIS. Alternative 5 was developed in response to DEIS public comments and from IDT member recommendations to optimize priority restoration opportunities. This alternative incorporates activities from all of the action alternatives and is presented as a separate alternative for ease of comparison. Alternative 5 would not require a site-specific, nonsignificant amendment (FSH 1926.51) of the Forest Plan because the proposed vegetation treatments would not make more than 30% modeled lynx source habitat unsuitable (TEST15 in the Forest Plan).

After release of the DEIS, Adams County finalized its Fire Mitigation Plan, which included lands designated WUI within the Middle Fork Weiser River Project area on its map. There are not any values at risk besides private timber lands in the Project area, but the WUI was designated as a buffer area for Tamarack Resort and private residences immediately east of the Project area. A continuation of SFB along an additional 8.9 miles of main Forest road was incorporated into Alternative 5 as ingress / egress routes for the public and fire fighter safety. However, none of the SFB treatment acres within the WUI boundary were excluded from the lynx model as making habitat unsuitable, even though it is allowed by TEST15 in the Forest Plan. I felt that the SFB treatments were necessary to protect ingress / egress routes within the Project area but were not treatments that were specifically designed with WUI in mind and not subject to TEST15. The impacts to lynx habitat are an important decision point in my choosing the *Selected Alternative*.

In reviewing the acreages of various vegetation treatments within modeled lynx habitat and source habitat capacity within the Middle Fork Weiser River LAU, it was discovered that the modeled habitat depicted in the DEIS was from the three LAUs found in the Project area instead of just the MFWR LAU. Further review of the model identified errors that were corrected and the model was rerun for all of the alternatives. Specifically, the refined model omitted aspen restoration treatments from making lynx source habitat unsuitable due to the 2013 Lynx Conservation Assessment and Strategy describing such treatments as beneficial to lynx foraging habitat. Figures and tables that were inadvertently omitted from the DEIS were also added to the FEIS Chapter 3 lynx analysis. These model refinements and additions to the lynx analysis helped inform my decision.

RATIONALE FOR DECISION

Why was the *Selected Alternative* Chosen?

Based on a review of the FEIS and Project record, I have decided to implement the *Selected Alternative* because it best meets the Project objectives while remaining sensitive to the issues

and concerns identified in the FEIS and through internal and external comment. The *Selected Alternative* addresses the Purpose and Need for the Project by moving vegetation towards desired conditions, particularly by maximizing whitebark pine restoration, wet meadow treatments, and aspen regeneration, with improvement of wildlife habitat for species associated with dry ponderosa pine forests, such as the white-headed woodpecker, in concert with the need for watershed and fisheries restoration activities. In addition, the *Selected Alternative* best reduces the risk of uncharacteristic and undesirable wildfire and protects key ingress / egress routes for public and fire fighter safety, implements restoration activities in all subwatersheds that will move the SWRA resource conditions toward desired conditions, and authorizes recreation management activities that improve recreational opportunities while providing for improved safety, sanitation and public health. The *Selected Alternative* will also contribute to the economic vitality of the communities adjacent to the Forest.

I have confidence that my decision to implement the *Selected Alternative* affirmatively addresses and fulfills the Purpose and Need for action, is responsive to the comments received on the DEIS, and is consistent with the Forest Plan.

I have considered the best available scientific information. My decision will maintain or promote large tree size class (LTSC) on nearly 13,000 acres and emphasizes improving habitat for sensitive wildlife species such as the white-headed woodpecker. My decision also maintains habitat for other sensitive and listed species.

My decision will improve conditions for SWRA resources. Road densities will decrease across all subwatersheds. Due to private land ownership within the Project area, it was not possible to meet the road density recommended in the Forest Plan and still provide access for future management activities and honor cost share easements with private land owners. The total road density for the Project area will be 3.8 miles per square mile for all ownership and 2.1 miles per square mile on NFS land only. The reduction in road density is between 0.6 and 1.6 miles per square mile among subwatersheds for NFS lands only and between 1.5 and 0.4 for all ownership. Mica Creek is the only subwatershed that would achieve the Forest Plan recommended 1.7 miles per square mile road density for NFS lands only while Granite Creek will be reduced the greatest.

The *Selected Alternative* includes recreation improvements to developed and dispersed sites needed within the Project area. My decision will increase access for motorized recreation and include maintenance to 28 miles of trails. Several trailheads will be relocated to NFS lands from private ownership to ensure public access in the future. The 205 trail reroute not included in the *Selected Alternative* will increase elk security more than any other alternative.

My decision also took into consideration cumulative effects. The Project area is used by many recreationists and contains valuable resources including the habitat for wildlife and fish species, soil and watershed resources, and other natural resources. Many past, present, and future projects, as described in Appendix 3 and Chapter 3 of the FEIS, were considered while developing this Project, in the design of project design features (PDFs) and mitigation measures, and in making this decision.

How the *Selected Alternative* Responds to the Purpose and Need

The Purpose and Need for the Project is disclosed in Section 1.7 of the FEIS. The FEIS provided detailed objectives in Section 1.8 that were elements of the Purpose and Need that the Project was designed to address. The IDT developed quantifiable measurements for each objective. These measurements are discussed below to demonstrate how the *Selected Alternative* responds to each Purpose and Need statement.

PURPOSE AND NEED 1: *Move vegetation toward the desired conditions (e.g., canopy cover in LTSC, species composition, and size class distribution), with an emphasis on:*

a) *Improving habitat for Family 1 species, such as the white-headed woodpecker, while maintaining habitat for federally listed and sensitive species;*
b) *Maintaining and promoting early seral species composition (e.g., aspen, whitebark pine, western larch, ponderosa pine, and Douglas-fir);*
c) *Reducing the risk of uncharacteristic wildland fire, with an emphasis on restoring and maintaining desirable plant community attributes including fuel levels, fire regimes, and other ecological processes;*
d) *Maintaining and promoting LTSC in PVGs 2 and 5;*
e) *Restoring spatial patterns by establishing varying patch sizes consistent with the historical range of variability that promote forest resilience to fire, insect, disease and climate change;*
f) *Reducing tree densities in PVGs 2, 5, 6, 7, 10, and 11;*
g) *Maintaining and promoting native grasses within nonforested habitats and restoring age and canopy class structure of sagebrush and bitterbrush;*
h) *Restoring aspen and nonforested habitats by reducing conifer encroachment.*

Vegetation

The Project area is composed primarily of forest types that were historically maintained by relatively frequent, low-to-mixed severity fire. Historically, a significant portion of the forest in the Project area was composed of stands with medium and large tree structure, as well as some stands with old forest habitat characteristics. Species composition in much of the Project area was historically dominated by early seral species, such as ponderosa pine, western larch, and aspen, and canopy closures were relatively open. Spatial patterns in these forest types varied but were historically more heterogeneous than existing conditions.

As disclosed in the FEIS Chapter 3 (Section 3.2.4), the current vegetative conditions are departed from the desired conditions. Within the Project area, the primary differences between the current and desired conditions for vegetation include: less LTSC than desired, especially in drier forest types; higher stand densities than desired; and an underrepresentation of early seral species, especially western larch, aspen, and ponderosa pine.

The *Selected Alternative* addresses the discrepancies between the existing and desired conditions by proposing treatments that reduce stand densities and emphasize the retention of tree species and sizes that will aid in moving toward the desired conditions. My decision allows for manipulation of vegetation by thinning (both commercial and noncommercial) on 22,500 acres, regeneration treatments on up to 3,000 acres, and prescribed burning on 27,200 acres. The design

of these treatments and associated PDFs took into consideration the desired conditions, ecological functions and processes, and other resource concerns, and is consistent with the underlying most current philosophy and science regarding conservation of wildlife species and habitats for species of greatest concern (referenced in the Project record).

The *Selected Alternative* also includes all the identified treatments that emphasize whitebark pine restoration, aspen regeneration, and dry and wet meadow treatments. I considered these treatments important to meet the Purpose and Need for maintaining these declining species and nonforest habitats within the Project area.

Fire and Fuels

The objective for Fire and Fuels (FEIS Section 1.8.1.2) includes restoring and maintaining desirable fuels levels, fire regimes, and ecological processes as measured by the amount of departure from historic fire regimes. The *Selected Alternative* would substantially improve fire regimes conditions across approximately 27,200 acres where both thinning and fire are prescribed. As such, 74% of the Project area will have significant improvement in the fire regimes post implementation.

Use of prescribed fire will help maintain forest conditions and natural processes within and outside the harvested areas. The *Selected Alternative* will restore fire regimes within the Project area by altering predicted fire types from conditional / active crown fires to primarily surface fires with passive crown fires. Additionally, my decision will restore vegetative structure and composition as well through the managed use of fire and will improve the integrity of the landscape and its resilience to wildland fires.

Where stand structure and species composition would be altered mechanically or by hand to meet Forest Plan desired conditions and where fire is reintroduced, fire regimes would are expected to move towards historic conditions at the greatest rate.

Wildlife

The *Selected Alternative* benefits Family 1 species, including white-headed woodpecker, through vegetation treatments that restore habitat. As disclosed in the FEIS (Section 3.4.6.2) under the No Action alternative, only 742 acres of modeled habitat for white-headed woodpecker currently exist in the Project area. The quantity of Family 1 habitat is modeled by acres of PVG 2, 5, and portions of 6 in the LTSC and low canopy cover class. The *Selected Alternative* will increase modeled habitat for white-headed woodpeckers up to approximately 4,000 acres immediately post-harvest. Although the habitat model for white-headed woodpeckers focuses on the LTSC, treatments in the medium tree size class will allow these stands to grow more rapidly into the LTSC with the low canopy cover preferred by this species. This will result in another 3,000 acres of habitat for the species in the mid term (15–30 years). Treatments will also improve the size and distribution of habitat patches compared with current conditions. Forest treatments should include clumps of trees, as well as small openings that mimic the heterogeneity of historical conditions.

My decision balances the need to maintain habitat for other species. Family 2 species use mixed conifer forests in medium and large tree size classes and generally moderate canopy cover classes. Habitat for Family 2 species will decrease as forests are thinned to restore open canopy, seral large-tree habitats, but it is still predicted to remain widespread. For example, about 3,300 acres of habitat for the pileated woodpecker (a Family 2 focal species and a Forest management

indicator species [MIS]) will remain in the Project area following treatments. However, habitat for Family 2 species is expected to increase over time as many medium-size forests grow larger and denser.

Based on public comments, I considered the need for additional restoration treatments in PVGs 7 through 11 while not requiring that a site-specific, nonsignificant amendment of the Forest Plan be prepared to allow for creating more than 30% unsuitable Canada lynx habitat. I have decided to include the acres in these PVGs proposed for treatment in Alternative 5, the *Selected Alternative,* because this alternative emphasizes treatments in areas where early seral species were historically prevalent and / or abundant while maximizing higher PVG treatments. Alternative 5 is also the most beneficial action alternative for tree size class in the short-to-long term without creating more than 30% modeled habitat for lynx unsuitable. However, it will create a desired mosaic of habitat types to be utilized by lynx moving through the Project area as described in the 2013 Lynx Conservation Assessment and Strategy as appropriate management in secondary areas.

Opposing Science

My decision has been made with the recognition that there are conflicting opinions, uncertainty, and opposing scientific views regarding some of the restoration strategies included in the *Selected Alternative*. While I recognize that the vegetation treatments in the *Selected Alternative* will not satisfy all interested parties, I feel they provide a balance between achievement of the Project Purpose and Need with issues and concerns. Indeed, if no treatments were implemented the Project area would continue to diverge from desired conditions. I also believe that treatment of the acreage identified in Alternative 5 better responds to the issues and balances the restoration opportunities with the uncertainty regarding historic fire regimes in mixed conifer forests (Kennedy and Fontaine 2009; Stine et al. 2013).

I acknowledge that the science regarding vegetative treatments in RCAs is still developing and that a level of uncertainty exists with such treatments. The *Selected Alternative* includes more than 3,100 acres of RCA treatments and would move vegetation conditions within these RCAs towards desired conditions as defined in Appendix A of the Forest Plan. All RCA treatments would be in the outer half of the RCA, except for the Wet Meadow Treatment and RCA Fuel Treatment. I fully considered all of the science balanced with the need for treatment when determining vegetative RCA treatments and associated mitigations in the *Selected Alternative.* As a result, my decision includes the placement of RCA treatment units in drier forest types, incorporation of PDFs to protect all riparian resource values, and monitoring requirements associated with these vegetative treatments in RCAs.

My decision also considers the science regarding which old trees and large trees to retain along with the best method(s) to achieve these conditions. I believe that the incorporation of PDFs and clarification of treatment specifications provided between the DEIS and FEIS, in Appendix 7 - Legacy Tree Guide, and included in the *Selected Alternative*, will successfully retain adequate old trees, large trees, and stocking levels necessary to move toward the desired conditions.

As noted in the description of the *Selected Alternative*, I anticipate that additional ground verification and application of necessary PDFs (such as protection of nest sites) may reduce commercial treatments by 10–40 percent from the amount estimated. By selecting the acreage of commercial treatment associated with Alternative 5, I believe I am selecting the areas that will benefit the most from vegetation treatments.

PURPOSE AND NEED 2: *Move all subwatersheds within the Project area towards the desired condition for the SWRA resource with emphasis on:*

a) *Improving water quality by reducing road-related accelerated sediment through a combination of road obliteration, realignment, and maintenance.*

b) *Restoring hydrologic function, stabilizing unstable streambanks, and reducing channel condition risk through road obliteration and realignment and removal of culverts on long-term road closures.*

c) *Improving aquatic habitat and fish connectivity by obliteration and realignment of roads within RCAs and by removing or upgrading culverts.*

d) *Restoring riparian vegetation and reducing sediment impacts by reducing in size, rehabilitating portions of, and hardening dispersed recreation sites in RCAs.*

Due to past management activities, SWRA resources are functioning at a lower than Forest Plan desired condition based on Watershed Condition Indicators (WCIs) analyzed in the FEIS. Roads have the ability to impact these resources the most when not properly placed in storage or maintained. The unauthorized routes that will be left after Project implementation are within the East Fork Weiser River subwatershed and are intentionally being left to not impact bull trout (*Salvelinus confluentus*) critical habitat through temporary sediment production from road decommissioning. These routes are behind closed roads and will not be accessible.

The *Selected Alternative* will move all subwatersheds within the Project area toward the desired condition for SWRA resources. Across the Project area, the *Selected Alternative* will improve 55 miles of stream. Miles of stream improved includes miles of restored stream connectivity, miles of RCA road decommissioning and road improvements (graveling) in RCAs. Two barrier

culverts will be replaced to provide AOP and reconnect 6.3 miles of upstream fish habitat. Road-related sediment will be reduced in the long term through decommissioning 76.1 miles of roadway, including 16 miles of NFS roads and 60.1 miles of unauthorized routes. Of these decommissioned roadways 23.4 miles are in RCAs, of which 8.9 are associated with realignments. Dispersed recreation sites, where next to streams, will also be hardened to reduce sediment.

Long-term closure of NFS roads is greatest for the *Selected Alternative*. I have decided to add approximately 4 miles of unauthorized roads to the NFS road atlas for future restoration and management access. As a compromise to reduce impacts to SWRA resources, the roads being added to the system as well as the realignments associated with them will be put into ML 1 - long term closure. I have also decided to put the roads and realignment associated with the proposed OHV loop into long-term closure as well since they are also important for future restoration and management access but were identified as candidates for decommissioning under Alternative 3.

My decision to implement the road-related activities in the *Selected Alternative* addresses the Purpose and Need for watershed restoration to move all subwatersheds analyzed within the Project area towards the desired condition.

PURPOSE AND NEED 3: *Manage recreational use in the Project area with an emphasis on hardening primary dispersed recreation areas, updating Cabin Creek Campground, improving existing trails and providing new trail opportunities including an off-highway vehicle (OHV) loop and a nonmotorized trail.*

The recreation improvements that are included in the *Selected Alternative* best meet the Purpose and Need to manage recreational use in the Project area. I considered the needs of the various types of recreation users, associated facilities, and recreation needs balanced with the existing need for resource improvement, species habitat conditions, and opportunity types provided.

The *Selected Alternative* includes extensive improvements to the only developed campground, Cabin Creek, in the Project area, including replacement and relocation of a new vault toilet to meet health and safety codes, the addition of new site markers for individual campsites, replacement of an existing fee tube and information kiosk, installation of accessible tables, building an accessible pathway to the water system, and reconstruction of the loop road and turn at the campground to accommodate full-sized recreational vehicles. Horse Cabin Flat dispersed site will also be improved with hitch rails, metal fire rings, and a new single vault toilet, as well as other identified dispersed site improvements. As many as 20 new dispersed sites will also be evaluated in conjunction with road decommissioning where roads being decommissioned could support a dispersed site at their intersection with open or seasonal NFS roads.

My decision includes all proposed trail actions with the exception of constructing an OHV loop and the trail 205 reroute. The proposed OHV loop was going to be seasonal and would require constructing 0.5 mile of new trail to complete the approximate 3 mile loop. I believe that the conversion of NFS road 51763 to a trail open to all vehicles (West Mountain Jeep Trail) provides a similar recreational experience and far greater benefit to the public and is, therefore, a better focus for limited Forest resources than the seasonal OHV loop would have been. Other open roads in the Project area already provide OHV loop experiences of greater recreational value than the proposed loop would have. The roads that were associated with the proposed OHV loop

will be put into long-term closure (ML 1) for wildlife security and watershed resource benefit in the *Selected Alternative*.

The NFS trail 205 will not be rerouted around private land and will instead be removed from the Forest trail system under the *Selected Alternative* for the benefit of elk security. This area is already accessible to both motorized and nonmotorized users via NFS trails 332, 198, 210, and 201.

PURPOSE AND NEED 4: *Contribute to the economic vitality of the communities adjacent to the Payette National Forest.*

Ecological benefits and economic impacts from the *Selected Alternative* would accrue over the life of the Project. As shown in FEIS Table 3.12-13, the commercial forest products, recreation-related improvements, restoration activities, and road work associated with Alternative 5 would support a total of 41 jobs and more than $1.49 million in local labor income over the 10 years that activities will be implemented.

PURPOSE AND NEED 5: *Improve firefighter and public safety by establishing strategically placed defensible fuelbreaks within the Project area.*

The *Selected Alternative* provides the most acres of SFB along main NFS roads within the Project area when compared to other alternatives because additional treatments were identified in Alternative 5. These fuelbreaks will help maintain main ingress / egress routes in the event of a wildfire in the Project area. Prescribed fire treatments will help to restore fire regimes within the Project area that would alter predicted fire types from conditional / active crown fires to primarily surface fires with passive crown fires. Additionally, my decision will restore vegetative structure and composition through the managed use of fire throughout the Project area and will improve the integrity of the landscape and its resilience to wildland fires.

The *Selected Alternative* will achieve the greatest amount of improvement to firefighter and public safety.

How the Selected Alternative Responds to the Issues

Issues were used to develop alternatives and / or appropriate mitigation measures or PDFs to address the effects of proposed activities. Each issue was tracked using indicators, which compare the effects of the proposed activities by alternative. Issues and indicators identified are discussed in the FEIS Section 1.11. The *Selected Alternative* responds to these issues as discussed below.

Wildlife Resources Issues–

Issue 1: *Treatments may adversely affect* ***source habitat*** *for wildlife species dependent on mixed conifer forests with multilayer structural characteristics. Such forests are associated with mixed to lethal fire regimes and associated processes (larger scales of insect and disease outbreaks and fire effects). Species of concern include listed and sensitive species and management indicator species (MIS).*

Background: A primary need Forestwide and in the Project area is to maintain and promote dry, lower elevation, large tree, and old forest characteristics for the associated wildlife species and reduce fragmentation that negatively affects species of concern. The processes, function,

patch-size, and diversity of forested habitats must all be considered in order to properly address wildlife habitat needs.

While habitat for Family 2 wildlife species, such as the pileated woodpecker and northern goshawk (*Accipiter gentilis*) will decrease in the short-to-mid term, loss of habitat is likely to be less than predicted due to PDFs and vegetation treatment measures. Additional measures require that we "give preference to retention of tree(s) exhibiting characteristics of high wildlife value (i.e., cavities, stem rot, broken tops with structure for nesting, etc.) even if this results in slightly higher than desired stocking" and retain "clumps of trees" and "skips" for wildlife. Skips are defined as portions of units not treated mechanically (Franklin et al. 2013).

Commercial thinning by various prescriptions will begin the process to restore these stands to more varied and natural conditions that will benefit a wide array of wildlife species. This decision includes Forest Plan direction and PDFs to protect important habitat components for wildlife species. See FEIS Table 2.4-1.

Wildlife monitoring will continue throughout project implementation. The Forest has partnered with the Rocky Mountain Research Station (RMRS), US Geological Survey, and universities to monitor the effectiveness of treatments for white-headed woodpeckers and northern Idaho ground squirrel northern Idaho ground squirrel (*Urocitellus brunneus*) (NIDGS). District wildlife staff will continue monitoring for flammulated owls (*Otus flammeolus*), great gray owls (*Strix nebulosa*), and northern goshawks to identify nest sites and implement PDFs for nest site protection, if necessary.

Issue 2: *High open* ***road densities*** *affect wildlife (e.g., elk) security and can lead to the removal of important habitat components (e.g., snags).*

My decision to include the road decommissioning activities and the removal of the 205 trail identified in Alternative 5 in the *Selected Alternative* best addresses this issue when compared with the other action alternatives. *The Selected Alternative* will decommission 60 miles of unauthorized routes, effectively close 56 miles system roads, and decommission 16 miles of system roads that will benefit elk and numerous other wildlife species. The *Selected Alternative* also puts the most miles of NFS road into long term closure (ML 1) than other alternatives. The overall road density in the Middle Fork Weiser LAU will be reduced which may benefit connectivity of lynx habitat in the higher elevations as well.

Issue 3: *Project activities (logging, log haul, prescribed burning, and temporary road construction) may cause disturbance to wildlife species of concern*

The vegetation treatments, prescribed burning, and temporary road construction included in the *Selected Alternative* may affect species of concern, but are not likely to adversely affect them (see Determinations in FEIS Section 3.4). In particular to Canadian lynx, vegetation treatments would not make more that 30% lynx source habitat unsuitable within the Middle Fork Weiser LAU. Project activities would instead create a mosaic of foraging, denning, and travel habitats for lynx as described in the 2013 Lynx Conservation Assessment and Strategy as a management in secondary areas. Managing for the desired conditions as described in Appendix A of the Forest Plan also benefits many wildlife species and makes the landscape more resilient to catastrophic wildfire.

Soil, Water, Riparian, and Aquatic (SWRA) Resources Issues-

Issue 4: *Proposed activities for roads, vegetation treatments, and prescribed fire may degrade water quality by increasing soil erosion and sediment delivery.*

Background: management activities that have the potential to disturb soils and decrease ground cover can result in increased soil erosion and, with a flow path, can result in increased sediment delivery to streams via overland flow or channelized flow, especially if delivered via road infrastructure at stream crossings or ditch relief culverts.

At the subwatershed scale, the *Selected Alternative is* predicted to result in a temporary to short-term increase in sediment with short- and long-term improvement towards the desired conditions. Because my decision includes the unauthorized route decommissioning from Alternative 5, the *Selected Alternative* is expected to result in additional long-term reduction to sediment production in all subwatersheds across the Project area. The *Selected Alternative* is expected to benefit water quality, fish, and fish habitat across the Project area by reducing overall sediment production at the subwatershed scale.

Issue 5: *Propose vegetation treatments and prescribed burning in RCAs may negatively affect stream temperatures and LWD.*

The *Selected Alternative* includes approximately 3,500 acres of vegetation treatments and 7,400 acres of prescribed burning located in RCAs. Vegetation treatments would only occur in the outer half of the RCAs, except on approximately 260 acres for Wet Meadow Treatments and a 15-acre Fuels Treatment area. Prescribed fire would be allowed to back into inner RCAs, but no active ignition would occur. Where RCA treatments are not proposed, stream buffers with no vegetation treatment of 240 feet and 120 feet on perennial and intermittent streams respectively would be applied.

Stream Temperature

The *Selected Alternative* is expected to maintain current stream temperatures at the subwatershed scale, as indicated in the literature cited in FEIS Section 3.6, through use of PDFs, and because intermittent streams would be dry during the hottest months. Direct solar radiation is the primary factor influencing stream temperatures in the summer. The RCA treatments will maintain riparian vegetation for stream shading. Low-intensity prescribed fire in RCAs is expected to produce a mosaic of low-intensity fire effects and not expected to reduce the canopy and shade providing vegetation to the extent that stream temperatures would be affected. Rapid regeneration of burned riparian areas is also expected. Actions associated with roads, including culvert activities and road reconstruction in RCAs, are expected to incrementally reduce stream shading, but no measureable effects on stream temperatures are expected. Road decommissioning is expected to result in an incremental improvement to stream shading in the short- and long-term timeframes as vegetation becomes reestablished on streambanks and in RCAs. Recreation improvements proposed in the *Selected Alternative* are also expected to maintain the current temperature conditions. Maintaining stream shading is also an important point with the expected effects to stream temperature from climate change.

Large Woody Debris (LWD)

Removal of trees from RCAs has the potential to affect recruitable LWD. Forest Plan standard SWST10 states that “trees or snags that are felled within RCAs must be left in place unless

determined not to be necessary for achieving soil, water riparian and aquatic desired conditions." All subwatersheds where RCA treatments are proposed are *"Functioning Appropriately"* (FA) with respect to LWD except for the Mica Creek, which is *"Functioning as Unacceptable Risk"* (FUR). Design of RCA treatments and PDFs are expected to maintain the current and recruitable LWD conditions. The *Selected Alternative* is expected to maintain the current and recruitable LWD at the subwatershed scale and would not slow the attainment of properly functioning LWD.

Issue 6: *Proposed activities may change timing and duration of peak runoff, which may affect bank stability in sensitive channels.*

Changes to Peak Flows

In making my decision, I considered the increases in Equivalent Clearcut Area (ECA) and the intent of the WCIs in Forest Plan Appendix B. Increases in ECA at the drainage scale would only occur in drainages not identified as high risk and the miles of road restoration both within the high risk drainages and at the subwatershed scale; the *Selected Alternative* would offset the effects of increases in ECA to some degree, due to the reduction in drainage network and flow routing due to roads. The increase in ECA at the 6th field subwatershed scale (Granite Creek, Jungle Creek, Mica Creek, and Little Fall Creek subwatersheds) is a tradeoff for achieving vegetation management goals within the Project area as defined in Appendix A of the Forest Plan. I believe that choosing to implement the *Selected Alternative* will result in overall watershed improvements at the 6th field subwatershed scale and contribute to achieving the goals of the Aquatic Conservation Strategy across the Project area, despite having some drainages and subwatersheds in the *FR* or *FUR* category for the disturbance history WCI. More importantly than increases in ECA to changes in peak flows may be the predicted effects of climate change. Higher peak flows are expected from more frequent rain on snow events. Decommissioning roads in RCAs as well as properly maintaining and storing system roads will decrease sediment delivery to streams and allow hydrologic networks to be more resilient to the effects of climate change.

Minimum Road System

The *Selected Alternative* results in a total of 401 miles of NFS road in the Project area, a reduction of 68 miles from the existing system road system. The Geomorphic Road Analysis and Inventory Package (GRAIP) model estimates reductions for all subwatersheds over the long term for annual percent over natural sediment due to the reduction in system road miles. As discussed above, the reduction of road density in the Project area is expected to contribute to road-related sediment reduction across the Project area in the long term.

Issue 7: *Proposed activities may decrease long-term soil productivity and impair soil-hydrologic function*

Sediment

The *Selected Alternative* results in a reduction from 3.1% to 2.3% Total Soil Resource Condition (TSRC) for the Project area due to the decommissioning of roads and treatment of unauthorized routes. Any new TSRC (landings and constructed skid trails) that is produced by the Project would also be fully obliterated. Additional reductions in TSRC would be realized since existing landings or unauthorized roads that are used as temporary roads or skid trails will be obliterated.

Site-specific PDFs, mitigation measures, and BMPs are utilized to reduce the potential for additional detrimental disturbance (DD) to be produced. If surveys indicate that some units have DD levels at or in excess of, 15%, it is required that a net reduction in DD be accomplished with the implementation of the Project (see ROD-Attachment 1, PDF #18).

The Forest Plan standards for TSRC and DD would be met as TSRC is reduced toward 5% of the Project area (Forest Plan Standard SWST03) and DD is reduced to 15% of individual activity area where in excess of 15% (Forest Plan Standard SWST02). Section 3.4 of the FEIS describes in more detail the effects on this issue under the *Selected Alternative*.

Transportation- Issue 10: *- Proposed activities to the road system (e.g., road closures and decommissioning) may reduce the amount of access to the areas identified in the Forest Plan for active management.*

The TAP (located in the Project record) was completed by the District in 2013 and determined the risk and benefit of each road in the Project area. The MRS is the minimum system roads that will serve Forest health, emergency access, and public access needs while complying with resource objectives, reflecting likely funding, and minimizing adverse effects associated with road construction, reconstruction, and maintenance. The *Selected Alternative* will retain 139 miles of NFS road on the landscape for potential future use for active management activities (Table ROD-7). This MRS has been determined to be sufficient for current and future expected access and is justified by analysis in the FEIS.

Table ROD-7. Selected alternative Minimum Road System (MRS).

Subwatershed	Existing Condition			*Selected Alternative*		
	Maintenance Level			Maintenance Level		
	1	2	3/4	1	2	3/4
East Fork Weiser River	1	1	0	1	1	0
Granite Creek	10	26	11	13	14	11
Jungle Creek	8	28	2	2	30	2
Little Fall Creek	4	19	7	3	16	7
Mica Creek	11	25	5	8	26	5
Totals	34	99	25	27	87	25
Total System Roads (MRS)	158			139		

Note – All figures are rounded to the nearest mile. Change in miles is due to decommissioning plus conversion to trail.

Cumulative Effects

My decision also took into consideration cumulative effects. The Project area is used by many recreationists and contains valuable wildlife habitat (i.e., MIS species, elk, and northern goshawk, among others detailed in Chapter 3 of the FEIS), soil and watershed resources, and other natural resources. Past, present, and future projects, as described in Appendix 3 and Chapter 3 of the FEIS, were considered while developing this Project, in the design of mitigation measures, and in making this decision.

How the *Selected Alternative* Responds to Public Comments

Public Involvement

Opportunities for the public to participate in and help shape this Project prior to issuing this FEIS and Draft ROD have been considerable.

The Council on Environmental Quality (CEQ) defines scoping as, "…an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action" (40 CFR 1501.7)

Among other things, the scoping process is used to invite public participation, help identify public issues, and obtain public comment during the EIS process. Scoping should begin early and continue until a decision is made. The public was invited to participate in the Project in various ways, as described below.

The IDT developed the Proposed Action and on December 19, 2014, a scoping letter and map describing the Project was mailed out (Project record) to approximately 171 individuals, livestock permittees, and other agencies and groups. In addition, a Notice of Intent to prepare an EIS was published in the December 24, 2014, edition of the *Federal Register* (Volume 79, Number 247), and a Request for Comments was published in *The Idaho Statesman*, the newspaper of record, on December 23, 2014, and in the *Adams County Record* on December 24, 2014. Fourteen public comments were received during the scoping period.

The Project also appeared in the USDA Forest Service's *Schedule of Proposed Actions* from April 2013 through April 2017. A public meeting was held in Council, Idaho, on January 12, 2015, prior to the release of the DEIS, and another meeting was held on March 8, 2016, during the public comment period. In attendance were members of the PFC, general public, grazing allotment permittees, and an Adams County Commissioner. The Project concept was introduced and the Forest Service received feedback from those in attendance.

Additionally, the District and PFC conducted public field tours of the Project on June 25, 2013, July 24, 2013, September 19, 2014, and November 6, 2015, to view potential vegetation treatments, watershed improvements, and recreation improvements.

Concerns Raised During the DEIS Public Comment Period

The DEIS was released for public comment on February 20, 2016, with a Notice of Availability in the *Federal Register*. The DEIS was posted on the Forest's website, with paper and electronic (CD) copies available upon request.

Sixteen comment letters on the DEIS were received. One letter was received after the deadline. Appendix 8 of the FEIS includes these comments and the Forest Service responses to them. I fully considered all public comments received and the agency responses in my decision-making process (See FEIS Appendix 9 – Response to Comments).

Predecisional Administrative Review

The FEIS and Draft ROD were completed in April 2017. Letters will be sent, notifying interested agencies, groups, and individuals, of the availability of the FEIS and Draft ROD in May 2017 via email on the GovDelivery system. These letters will state that the FEIS is subject to a 45-day predecisional objection period as required by 36 CFR 218 Part B and described how objections can be submitted. A legal notice of the opportunity to object, initiating the 45-day predecisional objection period, will be published in *The Idaho Statesman* (the legal newspaper of record).

Tribal Consultation

Tribal governments have a special and unique legal and political relationship with the United States government as reflected in the United States Constitution, treaties, statutes, court decisions, executive orders, and memoranda. This relationship imparts a duty on all Federal agencies to consult, coordinate, and communicate with Native American tribes on a government-to-government basis. Because Native American tribes can be affected by the policies and actions of the Forest Service in managing the lands and resources under its jurisdiction, the Forest Service has a duty to consult with them on matters affecting their interests. Because of this government-to-government relationship, efforts were made to involve local tribal governments and to solicit their input regarding the Proposed Action.

The Forest Service introduced this Project to the Shoshone-Paiute leaders during Wings and Roots Program meeting (government to government consultation) on March 12, 2015. The DEIS was delivered February 19, 2016. Updates were provided to the Shoshone-Paiute leaders during Wings and Roots Program meetings.

The Forest Service presented the proposed action to the Nez Perce Staff on December 3, 2014, and March 4, 2015. The DEIS was available February 20, 2016. Updates were provided to the Nez Perce Staff on at quarterly meetings. Formal Consultation with the Nez Perce Tribal Executive Committee has not been requested.

ALTERNATIVES CONSIDERED IN DETAIL

The FEIS considered five alternatives. A description of the five alternatives analyzed in detail can be found in FEIS Chapter 2. A comparison of these alternatives by activity can be found in the FEIS Chapter 2, Section 2.2.6.

The following tables (ROD 8–10) are comparisons of the alternatives by activities, objectives, and issues considered in detail for this Project.

Table ROD-8. Comparison of alternatives by activity.

Proposed Treatments	Alternatives				
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Commercial and Noncommercial Vegetation Treatment (Acres)					
Noncommercial thin	0	1,279	921	2,039	1,369
Restoration burned areas / plantations	0	3,240	3,178	3,244	3,229
Commercial thin-free thin	0	2,875	2,697	2,999	2,879
Free thin–patch cut-modified Shelterwood	0	5,343	4,946	6,076	5,367
Commercial thin / mature plantations	0	1,080	1,039	1,090	1,070
Conifer removal in aspen stands	0	1,087	900	1,087	1,087
Vegetation treatments in stands with low site quality	0	850	715	1,203	947
Dry nonforested vegetation treatment	0	4,519	3,592	4,999	4,944
Wet meadow treatment[a]	0	55	43	271	315
Shaded fuelbreak	0	370	0	370	458
RCA fuels treatment	0	15	0	15	15
Total Vegetation Treatments		20,713	18,031	23,393	21,679
Acres of vegetation treatments in RCAs[b]	0	3,000	2,668	3,627	3,162
Prescribed Burn (acres)					
Prescribed Burn	0	24,200	16,600	27,400	27,200
Prescribed Burn within RCAs (includes vegetation treatments in RCAs)	0	6,319	4,511	7,422	7,386
Temporary Roads (miles)					
Existing Prism (existing unauthorized routes that would be used in harvest then obliterated)	0	34.8	27.5	39.8	39.9
New Temporary Road Construction	0	9.7	8.1	8.3	8.9
Soil, Water, Riparian, and Aquatic Resource Improvement Treatment (miles)					
Long-term Closure	0	17.8	15.0	17.8	19.3
NFS road Decommissioning	0	16.1	23.3	16.1	16.0
Unauthorized Route Decommissioning	0	64.6	64.6	60.6	60.1
Road Decommissioning (includes the unauthorized routes used as temporary roads listed above)	0	80.7	87.9	76.7	76.1
Road Decommissioning within RCAs (Miles)					
Total miles (included in the miles of road decommissioning listed above)	0	24.6	26.2	23.6	23.4
Aquatic Organism Passage (AOP) / Habitat Connectivity					
Number of AOP improved	0	2	3	2	2
Transportation Management (Miles)					
Road realignment	0	2.2	0	4.5	3.9
Add to System roads	0	0	0	4.0	3.9
Total road reconstruction (includes road realignment and Add to System roads)	0	11.0	8.8	17.3	16.6
Implement Best Management Practices (BMPs)	0	5.5	5.5	5.5	5.5
Maintenance Level (ML) 1 to ML 2 Roads	0	14.2	14.2	14.2	14.2
Ensure Effective Closure on year-round and seasonally closed National Forest System Roads[c]	0	All	All	All	All
Recreation Improvements[d]—Trails (Miles)					
Trail Re-Route To Provide Legal Access From Trailhead (198 and 205)	0	6.4	6.4	6.4	4.4
NFS trail 198 convert from non-motorized to two-wheel motorized	0	2.0	2.0	2.0	2.0
Trail Maintenance	0	28	28	28	28

Proposed Treatments	Alternatives				
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
New OHV Trail Open To Vehicles Up To 70 inches Wide	0	3.0	0	3.0	0
New Non-Motorized Trail (NFS trail 212)	0	0.8	0.8	0.8	0.8
Convert 3.4 miles of West Mountain Jeep Road (NFS road 51763) (ML 2 road) to a "trail open to all vehicles".	0	3.4	3.4	3.4	3.4

[a]Wet meadow treatment is proposed in the outer half of RCAs in Alternatives 2 and 3. It includes both the inner and outer portions of RCAs in Alternative 4 and 5.
[b]Included in total above
[c]Ensuring effective closures may also be implemented in on-going road maintenance activities.
[d]See FEIS section 2.3.2 Recreation Improvements for additional proposals in all action alternatives including developed and dispersed recreation improvements and addition trail maintenance and trailhead improvements.

Table ROD-9. Comparison of alternatives by objective.

Vegetation Resource Objective 1: Move vegetation toward the desired future conditions defined in the Forest Plan, with an emphasis on promoting large tree forest structure, early seral species composition, and forest resiliency.					
Measurement	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Tree Size Class Acres treated to promote the large tree size class Acres treated to maintain the large tree size class	 0 0	 4,610 7,364	 4,139 7,118	 5,335 9,316	 4,722 8,203
Tree Canopy Cover Percentage of area (acres) in each canopy cover class within the large tree size class	Varies by Potential Vegetation Groups (PVGs); see Table 2.2-19 for comparison of alternatives for canopy cover.				
Tree Species Composition Acres treated to maintain and/or promote desired species composition	0	15,754	14,396	17,738	15,948
Vegetation Resource Objective 2: Maintain or restore a representation of native plant communities throughout the Forest.					
Measurement	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Acres of Aspen Treatments	0	1,087	900	1,087	1,087
Acres of Meadow Treatment (wet and dry)	0	4,574	3,635	5,270	5,258
Fire and Fuels Resource Objective 3: Restore and maintain desirable fuel levels, fire regimes, and ecological processes.					
Measurement	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Acres Moved towards Historical Fire Regimes	0	24,200	16,600	27,400	27,200
Fire and Fuels Resource Objective 4: Establish and maintain strategically placed shaded fuelbreaks to improve firefighter and public safety, improve the defensible space adjacent to private lands, and provide protection to infrastructure to the east of the Project area.					
Measurement	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Acres of Shaded Fuelbreak	0	370	0	370	458

Wildlife Objective 5: Improve habitat for Family 1 wildlife species, as represented by the white-headed woodpecker, a Region 4 Sensitive Species (USDA Forest Service 2011b) and Forest Management Indicator Species (MIS), by restoring forest conditions that contribute to source habitat for these species. Forested stands providing these source habitats should be restored to conditions within, or near, the Historical Range of Variability (HRV).					
Measurement	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Quantity and quality of Family 1 – white-headed woodpecker habitat restored to conditions within HRV. Quantity is measured by acres of PVGs 2 and 5, and portions of PVG 6 in the large tree size class and low canopy cover class. Quality is measured by the presence of old forest characteristics (e.g., legacy trees, snags, coarse woody debris (CWD), canopy gaps, and understory patchiness), as described in the Forest Plan (USDA Forest Service 2003a).	0 (742 current total)	3,985	4,054	4,039	4,004
Soil, Water, Riparian, and Aquatic (SWRA) Resources Objective 6: Improve watershed and aquatic function and integrity by moving all watersheds within the Project area towards the desired condition for the soil, water, aquatic, and riparian resources.					
Road Density by Subwatershed (miles/square miles); All Ownership/National Forest Land Only					
Subwatershed	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Granite Creek	4.6/4.2	3.0/2.5	2.6/2.1	3.1/2.6	3.1/2.6
Jungle Creek	5.9/3.1	5.3/2.1	5.3/2.1	5.4/2.2	5.5/2.3
Little Fall Creek	3.4/3.9	2.7/1.8	2.7/1.8	2.8/1.9	2.9/2.2
Mica Creek	4.8/2.6	4.0/1.6	4.0/1.6	4.1/1.6	4.1/1.7
RCA Road Density by Subwatershed (miles/square miles); All Ownership/National Forest Land Only					
Subwatershed	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Granite Creek	5.5/4.8	3.7/2.8	3.3/2.4	3.8/2.9	3.8/2.9
Jungle Creek	7.1/3.2	6.1/1.8	6.1/1.8	6.2/1.9	6.2/1.9
Little Fall Creek	5.2/5.1	4.1/1.8	4.1/1.8	4.1/2.0	4.2/2.1
Mica Creek	5.3/2.8	4.6/1.8	4.6/1.8	4.6/1.9	4.6/1.8
Number of Fish Barriers Replaced					
Stream Miles Improved – includes miles of fish habitat reconnected and miles of stream enhanced through road decommissioning and graveling within RCAs.					
Subwatershed	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Granite Creek	0	20.4	23.2	19.6	20.0
Jungle Creek	0	9.2	9.2	8.5	8.8
Little Fall Creek	0	6.9	6.9	6.1	6.9
Mica Creek	0	8.1	8.1	8.0	8.0
Miles Reconnected with Culvert Replacements	0	6.3	6.8	6.3	6.3
Graveling within RCAs	0	5.5	5.5	5.5	5.5
Total	0	56.4	59.7	54.0	55.5

Miles of Roads within RCAs by Subwatershed; All Ownership / National Forest Land Only					
Subwatershed	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Granite Creek	29.2/23.7	19.9/13.7	18.2/12.0	20.4/14.3	20.0/14.2
Jungle Creek	41.7/12.8	36.4/7.2	36.3/7.1	36.8/7.5	36.7/7.6
Little Fall Creek	20.7/7.4	16.5/2.6	16.5/2.6	16.7/3.0	16.7/3.1
Mica Creek	34.8/13.4	30.6/8.4	30.4/8.3	30.6/8.5	30.3/8.5
Total	126.4/57.3	103.4/32.8	100.4/29.9	104.5/33.3	103.7/33.3
Percent of total road-generated sediment reduced over the long term as modeled by Geomorphic Road Analysis and Inventory Package (GRAIP) and GRAIP Lite					
Subwatershed	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Granite Creek	0%	36.1%	48.3%	35.5%	Alt 4[a]
Jungle Creek	0%	15.5%	15.5%	14.4%	Alt 4[a]
Little Fall Creek	0%	41.1%	41.1%	41%	Alt 4[a]
Mica Creek	0%	18.1%	18.2%	17.9%	Alt 4[a]
Number of harvest units meeting Appendix A desired conditions for CWD, both in general and in the large (greater than 15 inches diameter) size class.	No harvest planned	Trend toward Forest Plan desired conditions as described in Appendix A more quickly than Alternative 1 in proposed harvest units.			
Recreation Objective 7 : Manage recreation use in the Project with an emphasis on identifying and hardening primary dispersed recreation areas, updating Cabin Creek Campground, improving existing trails, closing and rehabilitating unwanted user-created motorized routes, and developing new trail opportunities.					
Measurement	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Miles of open nonmotorized trail	3.8	2.6[b]	2.6[b]	2.6[b]	2.6[b]
Miles of open two-wheel motorized trail	21.8	31.2[c]	31.2[c]	31.2[c]	29.3[d]
Miles of open ATV and OHV trails open to all vehicles	2.4	8.8[e]	5.8[f]	8.8[e]	5.8[f]
Miles of open year-round and seasonally open National Forest System and county roads	113.6	107.7	104.7	107.7	111.5
Change to existing dispersed recreation sites measured by changes to recreation facilities and/or resource improvements at the existing sites	Existing number	+up to 20 dispersed sites improved			
Economics Objective 8: Contribute to the economic vitality of local communities.					
Measurement	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Employment contribution (number of jobs on annual average).	0	39	36	43	41
Income contribution ($ thousands)	$0	$1,420	$1,306	$1,544	$1,493

[a]For this indicator, sediment reduced is within 0.1% of Alternative 4.
[b]Alternatives 2, 3, 4, and 5 change in nonmotorized trail = 3.8 (existing) + 0.8 (addition of #212) – 2.0 (portion of #198 to two-wheel) = 2.6 miles.
[c]Alternatives 3 and 4 change in two-wheel trail = 21.8 (existing) + 2.0 (addition of #198 motorized section) + 6.4 (reroutes around private land) + 1 (reroutes in general) = 31.2 miles.
[d]Alternative 5 change in two-wheel trail = 21.8 (existing) + 2.0 (addition of #198 motorized section) + 4.4 (reroutes of #198 around private land) + 1 (reroutes in general) – 1.9 (removal of #205) from system = 29.3 miles.
[e]Alternatives 2 and 4 change in ATV/OHV = 2.4 (existing ATV) + 3.0 (new OHV) + 3.4 (road to trail conversion) = 8.8 miles.
[f]Alternatives 3 and 5 change in ATV/OHV = 2.4 (existing ATV) + 3.4 (road to trail conversion) = 5.8 miles.

Table ROD-10. Comparison of alternatives by issue.

Wildlife Issue: High open road densities affect wildlife (e.g., elk) security and can lead to the removal of important habitat components (e.g., snags).					
Indicators	**Alt 1**	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5**
Change in elk security areas (Hillis et al. 1991). (Using all roads, routes and motorized trails buffered 0.5 mile and polygons greater than 250 acres. See elk section in Wildlife Resources for additional analysis.	Current Condition 2 areas 1,278 acres	2 areas 858 acres (no change in number of areas, decrease of 420 acres)	3 areas 1,140 acres (change in number of areas, decrease of 138 acres)	2 areas 858 acres (no change in number of areas, decrease of 420 acres)	2 areas 1,401 acres (no change in number of areas, increase of 123 acres)
Miles of NFS roads and unauthorized roads a) closed by physical closure, including LTC or b) decommissioned by treatments described in Chapter 2.[a]	a) 0 b) 0	a) 72.0 b) 80.7	a) 65.6 b) 87.9	a) 78.2 b) 76.6	a) 78.2 b) 76.1
Estimated effectiveness of closures and/or decommissioning by a) closed by physical closure, including LTC or b) decommissioned by treatments described in Chapter 2.[a]	a) Moderate b) High	a) Moderate b) High	a) Moderate b) High	a) Moderate b) High	a) Moderate b) High
Effects of opening closed roads to allow for additional firewood harvest.	No opening of closed roads.	No impact on elk, assuming road opening would occur outside of rifle hunting season. Cavity-dependent wildlife species would be detrimentally impacted by snag removal; this would require site-specific snag analysis. Amount and duration of snag removal would not likely lead to Federal listing of any protected species.			
Wildlife Issue: Treatments may adversely affect source habitat for wildlife species dependent on mixed conifer forests with multilayer structural characteristics. Such forests are associated with mixed-to-lethal fire regimes and associated processes (larger scales of insect and disease outbreaks and fire effects). Species of concern include listed and sensitive species and management indicator species.					
Indicators					
Quantity (acres) and distribution of habitat for species of concern.	See discussion in Wildlife Resources section of Chapter 3.				
Quality (specifically old forest, snags, patch and pattern) and distribution of habitat for species of concern.	See discussion in Wildlife Resources section of Chapter 3.				

[a]Total road decommissioning is 80.7, 87.9, 76.7, and 76.1 miles for Alternatives 2, 3, 4, and 5, respectively. The physical closure miles are less than full obliteration.

Wildlife Issue: Project activities (logging, log haul, prescribed burning, and temporary road construction) may cause disturbance to wildlife species of concern.					
Indicator	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**
Disturbance effects on species of concern	See discussion in Wildlife Resources section of Chapter 3.				
Soil, Water, Riparian, and Aquatic (SWRA) Issue: Proposed activities for roads, vegetation treatments, and prescribed fire may degrade water quality by increasing soil erosion and sediment delivery.					
Indicators	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**
Miles of temporary road constructed	0	34.8	27.5	39.8	41.0
Miles of new temporary road	0	9.7	8.1	8.3	8.9
Miles of road realignment and reconstruction	0	11.0	8.8	17.3	16.6
Miles of new long-term closures (road storage)	0	17.8	15.0	17.8	21.6
Miles of road decommissioned – System	0	16.1	23.3	16.1	16.0
Miles of road decommissioned – Unauthorized	0	64.6	64.6	60.6	60.1
Acres of mechanical treatment[a]	0	18,820	16,591	21,308	22,515
Acres of prescribed fire[b]	0	24,200	16,600	27,400	27,200
Soil, Water, Riparian, and Aquatic (SWRA): Treatments that propose vegetation treatment and prescribed burning in Riparian Conservation Areas (RCAs) may negatively affect stream temperatures and large woody debris (LWD).					
Indicators	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**
Acres of vegetation treatment within RCAs	0	3,000	2,668	3,627	3,162
Acres treated within one site potential tree height	0	12	0	203	190

[a]For this indicator, mechanical treatment acres assume only 40% of dry, nonforested will actually receive mechanical treatment (mostly machine piling), as not every acre is in need of conifer removal. Assume 300 acres of machine piling for the shaded fuelbreak in Alternatives 2 and 4. These acreages are likely still high, as treatment in wet and dry meadows and some RCAs will be done by hand.

[b]Prescribed fire acres are rounded to the nearest 100 acres.

Listed below are the four alternatives I did not select and my rationale for not selecting them:

Reasons for Not Selecting Alternative 1

Alternative 1 does not move the environmental conditions towards Forest Plan DFCs as they relate to the Project's Purpose and Need. Since no new forest vegetation activities would occur under this alternative, it would not provide an opportunity to address tree size class distributions, canopy cover class, tree species composition, and spatial patterns that are either over represented or under represented. There would be no area treated to reduce potential fire behavior, thus increasing the risk to the public, private property, and values within and adjacent to the Project area. No acres of white-headed woodpecker habitat would be restored to conditions within the HRV, and the quality of white-headed woodpecker habitat restored to HRV (as represented by old forest characteristics) would decrease over time (as represented by snag conditions) and would not be maintained. The condition class of all subwatersheds would not be improved and no restoration action in the Project area would be realized. There would be no employment or income contribution to local economies, and there would be no biomass removed. I find that the No Action alternative falls far short of addressing the Purpose and Need for this Project, specifically in providing more resilient stands, promoting forest health, restoring watershed health, and contributing to the economic vitality of local communities.

Reasons for Not Selecting Alternative 2

Although Alternative 2 was developed as the Proposed Action for the DEIS, there were recommendations, both internally and received from the DEIS public comment period, to include elements of other alternatives in the draft *Selected Alternative*. Restoration opportunities for whitebark pine regeneration, aspen regeneration, and wet meadow restoration were not fully maximized in Alternative 2. There was room for additional restoration treatments in the higher PVGs without completing a site-specific, nonsignificant Forest Plan amendment to allow more than 30% lynx habitat to be made unsuitable by vegetation management activities. Alternative 2 does not include enough of the key restoration treatments in PVGs 7 through 11 and as such was not selected.

Reasons for Not Selecting Alternative 3

Alternative 3 would achieve the greatest benefit to SWRA resources by decommissioning the most miles of roadways in the Project area. However, it does not propose any treatments in the higher PVGs (PVG 7–11) as the other three action alternatives do. I believe the need for whitebark pine and aspen restoration is too great to not include some treatments in my decision. I also feel that Alternative 3 decreases the NFS road system beyond what will be needed for future management activities.

Reasons for Not Selecting Alternative 4

Alternative 4 was the only alternative that would have required a site-specific, nonsignificant Forest Plan amendment to allow more than 30% lynx habitat to be made unsuitable from vegetation management activities. After reviewing the DEIS public comments and considering the benefits to wildlife habitat, including lynx, I decided to not consider the Forest Plan amendment and also to not select Alternative 4.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Section 2.2.1 in the FEIS discusses other alternatives to the Proposed Action we considered but eliminated from detailed analysis and the reasons for not considering them further. These alternatives were suggested in internal and external scoping. Briefly, these alternatives considered but eliminated from detailed study were:

1) An alternative that would combine more extensive watershed restoration actions with more intensive vegetation treatments.
2) An alternative that would maximize commodity production.
3) An alternative the proposed no new road construction or reconstruction.

CONSISTENCY WITH THE FOREST PLAN

My decision to implement the *Selected Alternative* is consistent with Forest Plan Goals and Objectives, and Standards and Guidelines as documented in the resource sections in Chapter 3 of the Project FEIS, in the Rationale Section of this ROD, and the Forest Plan Consistency Checklist in the Project record. No Forest Plan amendments are needed to implement this Project.

CONSISTENCY WITH OTHER LAWS AND REGULATIONS

A partial list of Federal laws and Executive Orders pertaining to project-specific planning and environmental analysis on Federal lands follows.

Archaeological Resources Protection Act of 1979

The purpose of the Archaeological Resources Protection Act (ARPA) is to protect irreplaceable archaeological resources on Federal and Native American lands.

This statute (16 U.S.C. 470aa-470mm; Public Law 96-95 and amendments to it) was enacted "...to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals (Sec. 2(4)(b))."

The reasons behind enactment include recognition that archaeological resources are an irreplaceable part of the United States' heritage and that they were endangered increasingly because of the escalating commercial value of a small portion of the contents of archeological sites.

The primary impetus behind ARPA was the need to provide more effective law enforcement to protect public archeological sites. Two improvements over the Antiquities Act, which was the statute designed to provide this protection prior to ARPA's enactment, were more detailed descriptions of the prohibited activities and larger financial and incarceration penalties for convicted violators. Section 6 of the statute describes the range of prohibited actions including damage or defacement in addition to unpermitted excavation or removal. Also prohibited are selling, purchasing, and other trafficking activities whether within the United States or

internationally. Section 6(c) prohibits interstate or international sale, purchase, or transport of any archeological resource excavated or removed in violation of a State or local law, ordinance, or regulation.

This management requirement is listed in Section 2.4, Management Requirements. Additional information can be found in Section 1.12.1.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act, Public Law No. 95-341, 92 Stat. 469 (August 11, 1978) (commonly abbreviated as AIRFA), is a United States Federal law and a joint resolution of Congress that was passed in 1978. The AIRFA was enacted to protect and preserve the traditional religious rights and cultural practices of Native Americans, Eskimos, Aleuts, and Native Hawaiians.

Clean Air Act, as amended in 1990

The purposes of the Clean Air Act are, "…to protect and enhance the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population; to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution; to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and to encourage and assist the development and operation of regional air pollution prevention and control programs."

Clean Water Act, as amended in 1977 and 1982

The primary objective of the Clean Water Act (CWA) is to restore and maintain the integrity of the nation's waters. This objective translates into two fundamental national goals: (1) eliminate the discharge of pollutants into the nation's waters, and (2) achieve water quality levels that are fishable and swimmable. The CWA establishes a nondegradation policy for all proposed Federal projects.

The CWA is addressed through PDFs and mitigation measures and monitoring (Section 2.5 and Appendix 4). For more information, see Section 3.5, "Watershed Resources" and the Water Resources Specialist Report, Appendix B in the Project record.

Civil Rights, Consumers, Minorities, and Women

All Forest Service actions can impact, positively or negatively, the civil rights of individuals or groups, including minorities and women. The need to analyze these potential impacts is required by the Forest Service Manual and Forest Service Handbook. This Project would not affect civil rights, consumers, minorities, or women.

Endangered Species Act of 1973, as amended

The purpose of the Endangered Species Act (ESA) is to, "…provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions

set forth in subsection (a) of this section." The ESA also states, "It is further declared to be the policy of Congress that all federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act." The ESA is addressed in Sections 3.4 "Wildlife Resources," 3.6 "Fisheries Resources," and 3.8 "Botany and Rare Plants."

Executive Order 11990—Protection of Wetlands

Executive Order (EO) 11990 provides direction to Federal agencies to protect the nation's wetlands when undertaking all activities. The order is addressed through PDFs.

Executive Order 11988—Floodplain Management

Under EO 11988, proposed activities must not increase flood hazards and must preserve the resource benefit of floodplains (the ability to dissipate flood flows and moderate flood peaks). This requirement is addressed through PDFs.

Executive Orders Pertaining to Tribal Consultation

A requirement for regular and meaningful consultation between Federal and tribal government officials on Federal policies that have tribal implications was established under EO 12175.

Executive Order 12785 was enacted to reduce unfunded mandates upon State, local, and tribal governments; to streamline the application process and increase the availability of waivers to State, local, and tribal governments; and to establish regular and meaningful consultation and collaboration with State, local, and tribal governments on Federal matters that significantly or uniquely affect their communities.

Executive Order 13007 was enacted in order to (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites.

Executive Order 12898—Environmental Justice

Under EO 12898 each Federal agency is directed to achieve Environmental Justice as part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. The President also signed a memorandum emphasizing the need to consider these types of effects during NEPA analysis. On March 24, 1995, the Department of Agriculture completed an implementation strategy for EO 12898. Where Forest Service proposals have the potential to adversely affect minority or low-income populations disproportionately, effects must be considered and disclosed (and mitigated to the degree possible) through NEPA analysis and documentation.

Executive Order 13112—Invasive Species

Executive Order 13112 requires Federal agencies whose actions may affect the status of invasive species to identify such actions, prevent the introduction of invasive species, detect and respond rapidly to and control populations of such species, provide for restoration of native species and

habitat conditions, and promote public education on invasive species. Additionally, Federal agencies are directed to not carry out actions that they believe are likely to cause or promote the introduction or spread of invasive species.

Activities proposed under the Project are not anticipated to substantially cause or promote the introduction or spread of invasive species. Information on noxious weeds can be found under Section 3.13.

Executive Order 13186—Responsibilities of Federal Agencies to Protect Migratory Birds

Under EO 13186 Federal agencies are required to evaluate the effects of Federal actions and agency plans on migratory birds with an emphasis on species of concern. No interagency determinations are to be made for migratory birds as with Federally listed species. This information is reviewed with the United States Department of the Interior (USDI) Fish and Wildlife Service (FWS); no mechanism is in place for the FWS to consult on Project effects. This issue is addressed in the Wildlife Specialist Report (see Project record).

Federal Noxious Weed Act of 1974

The Federal Noxious Weed Act provides for the control and management of nonindigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. Noxious weed treatment would be conducted according to Federal and State law if implemented in conjunction with this Project.

Idaho Forest Practices Act

The purpose of the Idaho Forest Practices Act (IFPA) is to ensure the continuous growth and harvest of forest trees and to maintain forest soil, air, water, vegetation, wildlife, and aquatic habitat. The IFPA requires consistency with forest practice rules for Federal, State, and private lands in order to protect, maintain, and enhance the State's natural resources. Best Management Practices and contract provisions would be used to meet specific IFPA regulations. Site-specific PDFs and mitigation measures are listed in Section 2.5.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act provides a process for museums and Federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony, to lineal descendants and culturally affiliated Native American tribes and Native Hawaiian organizations.

Migratory Bird Treaty Act of 1918

The proposed agency activities should not degrade habitat for migratory land birds that are known to exist in the Project area. Habitat for migratory species will be surveyed prior to Project implementation to ensure that appropriate measures have been taken to protect nest sites and other source habitat. For example, flammulated owls are neotropical migrants that winter in Central America but nest in ponderosa pine forests of the northern Rocky Mountains. Flammulated owls have been documented in the Project area as recently as 2014. The stands

where these birds were located would be surveyed again, prior to implementation of any timber harvest activities, to determine stand occupancy by flammulated owls. The survey transects would be sampled annually for, at least, the duration of the Project. A complete list of birds protected under the Migratory Bird Treaty Act is located in the Wildlife Specialist Report in the Project record.

Facilitation of Hunting Heritage and Wildlife Conservation—E.O. 13443

On August 16, 2007, President George W. Bush signed an EO directing appropriate Federal agencies to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitats (FR Vol. 72, No. 160, August 20, 2007).

The Project area provides habitat for several game species including deer (Cervidae), elk, American black bear (*Ursus americanus*), mountain lion (*Puma concolor*), gray wolf (*Canis lupus*), and forest grouse (Phasianidae). The effects to wolves and elk were considered in previous sections and in the Wildlife Specialist Report (see Project record). Mitigation has been included to minimize and avoid impacts to elk (primarily through effective road closures and obliteration of unauthorized roads) so that habitat is provided to support Idaho Department Fish and Game's population objectives. These measures should also benefit deer. In addition, Project-wide prescribed fires should improve forage for deer and elk across the landscape. Mountain lion presence is largely tied to the presence of deer, so activities that maintain or improve deer habitat should maintain mountain lion populations.

American black bears are habitat generalists. While they prefer mixed deciduous-coniferous forests with thick understories, they will utilize a variety of habitats. Special habitat features include fallen logs and debris, and standing hollow trees that provide denning sites for bears. Snag and CWD desired conditions apply to all management activity areas and will provide for these components on the landscape in amounts, distribution, and sizes that were historically expected to exist within each of the PVGs.

Dusky grouse (*Dendragapus obscurus*), spruce grouse (*Falcipennis canadensis*), and ruffed grouse (*Bonasa umbellus*) are all present in the Project area. Habitat use and needs vary between the species. Dusky grouse are found in open coniferous forests, often with a fir component. Douglas-fir provides day roosts, and the buds and needles are an important winter food. Subalpine fir, with its dense foliage, is often selected as a night roost. Ruffed grouse utilize dense forests with some deciduous trees or shrubs. Aspen is an important component of habitat. Young forests provide optimum habitat for the species. Spruce grouse occupy coniferous forests that include short-needled trees (lodgepole pine, spruce-fir). Berry-bearing shrubs (*Vaccinium* species) are a common component of habitats. Key features include forest structure that provides cover (e.g., lodgepole pine prior to self-pruning). All three grouse species are associated with forested habitats. The Proposed Action will reduce tree densities and canopy cover within dense stands, thus improving conditions for the dusky grouse. Prescribed fire treatments should help regenerate aspen forests, an important component of ruffed grouse habitat. There will likely be no impacts on or improvement to spruce grouse habitat from this Project.

National Environmental Policy Act of 1969, as amended

The purposes of the NEPA are, "To declare a national policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality" (42 U.S.C. Sec. 4321). The law further states "...it is the continuing policy of the federal government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans" (42 U.S.C. Sec. 4331(a)). The format and content requirements of environmental analysis and documentation were established under NEPA.

National Forest Management Act of 1976

The NFMA guides development and revision of National Forest Land Management Plans and has several sections ranging from required reporting the Agriculture Secretary must submit annually to Congress to preparation requirements for timber sale contracts. There are several important sections within the NFMA, including Section 1 (purpose and principles), Section 19 (fish and wildlife resource), Section 23 (water and soil resource), and Section 27 (management requirements).

National Historic Preservation Act of 1966, as Amended

The National Historic Preservation Act (NHPA) of 1966 changed the way in which the Federal government regarded its role in historic preservation. The NHPA authorized the Secretary of Interior to expand and maintain a NRHA composed of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. This act requires Federal agencies to consult with the State Historic Preservation Office (SHPO) and Native American tribes when nonrenewable cultural resources, such as archaeological sites and historic structures, may be affected by a Federal action. Section 106 of NHPA requires Federal agencies to review the effects proposed projects may have on cultural resources in the Project area.

The Idaho SHPO has been consulted concerning proposed activities in the Project area. Section 1.12.1, "Cultural and Archaeological Resources," discusses Idaho SHPO consultation, and Section 1.14 discusses American Indian tribal consultation.

Omnibus Public Land Management Act of 2009

Congress, under Title IV of the Omnibus Public Land Management Act of 2009, established the Collaborative Forest Landscape Restoration (CFLR) Program. The purpose of the CFLR Program is to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes. The CFLR Program provides a means to achieve an all-lands approach to forest restoration and to also:

- Encourage ecological, economic, and social sustainability;
- Leverage local resources with national and private resources;
- Facilitate the reduction of wildfire management costs, including through reestablishing natural fire regimes and reducing the risk of uncharacteristic wildfire;
- Demonstrate the degree to which various ecological restoration techniques achieve ecological and watershed health objectives; and,
- Encourage use of forest restoration by-products to offset treatment costs, to benefit local rural economies, to and improve forest health.

Title IV also establishes the CFLR Fund, providing authority for funding of CFLR Projects selected by the Secretary of the USDA. In 2010 and 2011 the Forest submitted a CFLR Project, and on February 2, 2012, the Secretary of the USDA announced the selection of the Forest's Weiser-Little Salmon Headwaters CFLR Project, currently encompassing 900,000 acres of NFS lands in the Council, New Meadows, and McCall Ranger Districts in Adams County, Idaho. The Project is part of the landscape within the Weiser-Little Salmon Headwaters CFLR Project.

Uses and Limitations of the CFLR Fund include:

- The CFLR Fund may only be used on NFS lands.
- The CFLR Fund may not be used to cover planning costs.
- The CFLR Fund may be used to pay for up to 50% of the cost of carrying out and monitoring ecological restoration treatments on NFS lands.
- No more than $4,000,000 may be spent from the CFLR Fund in any one fiscal year on any one project.
- The CFLR Fund for any one proposal may be expended for no more than 10 fiscal years.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative "…is the alternative that will best promote the national environmental policy as expressed in NEPA's section 101 (42 USC 4321). Ordinarily, the environmentally preferable alternative is that which causes the least harm to the biological and physical environment; it also is the alternative which best protects and preserves historic, cultural, and natural resources. In some situations, there may be more than one environmentally preferable alternative (36 CFR 220.3)" (FSH 1909.15). Social and economic factors are not considered when identifying the environmentally preferable alternative. Identification of the environmentally preferable alternative is required by 40 CFR 1505.2(b) in a record of decision.

Alternative 3 is the environmentally preferable alternative for SWRA resources as it improves watershed condition of the subwatersheds analyzed within the Project area the most. However, Alternative 4 is considered the environmentally preferable alternative for vegetation resources. This alternative moves the vegetation toward the DFCs as defined in the Forest Plan, Appendix A, with over 23,000 acres of commercial and noncommercial vegetation treatments and 27,400 acres of prescribed burning proposed. Based on the description of the alternatives considered in detail in the FEIS and this ROD, Alternative 3 best meets the goals of NEPA Section 101 for SWRA resources, and Alternative 4 best meets the goals for vegetation resources. All

alternatives protect and preserve historic and cultural resources the same. Therefore, the environmentally preferable alternative for this proposed Federal action is described by more than one alternative.

IMPLEMENTATION

Implementation is tentatively scheduled to begin immediately following the conclusion of the objection resolution period and signing of this ROD pursuant 36 CFR 218.12.

CONTACT PERSON

Keith Lannom, Forest Supervisor for the PNF is the decision maker for this Project. Detailed records of the environmental analysis are available for public review at the District in Council, Idaho. For further information on this decision contact:

Greg Lesch

Council District Ranger

(208) 253-0101

Or

Sue Dixon

Forest Environmental Coordinator

(208) 634-0796

Or

Mark Fox

Council Environmental Coordinator

(208) 253-0164

LITERATURE CITED

See FEIS Chapter 4 for all references cited in the ROD.

ATTACHMENT 1- PROJECT DESIGN FEATURES

Project Design Features / Mitigation Measures

Project design features are designed to avoid, reduce, or eliminate undesirable effects. Mitigation measures are designed to rectify or compensate for undesirable effects from proposed activities. Unless noted otherwise in the decision document, the PDFs / mitigation measures are mandatory if the Responsible Official selects an action alternative for implementation.

The PDFs / mitigation measures listed in Table PDF-1 through PDF-10 are practices the IDT developed during this Project analysis to address site-specific environmental concerns and to meet Forest Plan Standards and Guidelines. Each feature or measure includes a description, the Objective, applicable Forest Plan Standard / Guideline (USDA Forest Service 2003a), the enforcement mechanism and person(s) responsible for enforcement, and an effectiveness rating with the basis for that rating.

NEPA regulations (40 CFR 1508.20 Mitigation) state the following:

"Mitigation" includes

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Project design features were created to use design criteria to prevent the need of a mitigation measure.

Project design feature / mitigation effectiveness is rated as follows for this Project:

- High—Highly effective (estimated at greater than 90%) at meeting the Objective, and one or more of the following types of documentation or rationale is available:
    - Research or literature
    - Administrative studies
    - Experience: professional judgment of an expert
    - Fact: evident by logic or reason
- Moderate—Moderately effective (estimated at 60% to 90%), and its effectiveness is supported either by evidence or logic. Implementation of this PDF or mitigation needs to be monitored, and it may be modified if needed to achieve its Objective.

- Low—Somewhat effective (estimated at less than 60%), but its effectiveness is not supported by substantial evidence, or professional judgment indicates limited success in implementation or meeting Objectives. Implementation of this PDF or mitigation needs to be monitored, and it may be modified if necessary to achieve its Objective.

Table PDF-1. Project design features and mitigation measures for wildlife.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Wildlife					
1	Prior to any ground-disturbing activity, including but not limited to the construction of log landings, vehicle turnouts or parking areas, skid trails, or road construction and maintenance, road decommissioning and obliteration, and prescribed burning, the Wildlife Biologist or designated Wildlife Staff should conduct on-site surveys at least three times during a 7-day period in potential northern Idaho ground squirrel (NIDGS) (*Urocitellus brunneus*) habitat to determine the presence of NIDGS. Surveys would be conducted to identify the presence of NIDGS in or within harvest units and prescribed fire areas. The Wildlife Biologist would determine potential habitat areas to be surveyed based on GIS maps, aerial photos, and professional expertise. If occupied NIDGS sites are discovered, additional measures described below would be implemented to minimize potential effects: Mechanical thinning operations, skidding, decking, slash piling, and prescribed burning are prohibited in occupied NIDGS sites without approval by the Wildlife Biologist. If necessary, project activities may be shifted to a time period outside the NIDGS above-ground activity period (April 1 to August 15). If project activities are shifted to the fall season, wildlife staff would identify NIDGS dens with pin flags and coordinate all activities in these known sites. Fall activities would be allowed only if soil moisture levels are dry enough to prevent soil damage from machinery, as determined by the Sale Administrator, Soil Scientist, Wildlife Biologist, and Timber Management Assistant. If wet soil conditions prevent project activities in fall, the activities may be shifted to winter. This would require at least 18 inches of firm snow and/or 4 inches of frozen soil prior to activity approval by the Sale Administrator, Wildlife Biologist, and Timber Management Assistant. If project activities at any NIDGS site cannot be appropriately mitigated, that project unit and the associated project activities may be dropped from the timber sale. In harvest units where NIDGS are found, ground-disturbing activities should occur in the time period from September 1 through March 15.	Provide protection to Federally listed NIDGS, feeding sites, seasonal burrows, late summer estivation dens, and winter hibernacula.	HIGH: research, literature, Forest Plan, agency direction, logic	TEST01 TEST02 TEST03 TEST06 TEST12 TEST13 TEGU01 TEGU02 TEGU06 WIGU01	Timber Sale Contract, Wildlife Biologist, Soil Scientist, Timber Management Assistant, Sale Administrator, Burn Plan, Fire Management Officer

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Wildlife					
2	If occupied NIDGS sites are found adjacent to haul routes on National Forest System (NFS) lands, a speed limit of 15 mph would be recommended where determined necessary by the Wildlife Biologist. Monitoring would also be required. If speed limits or other protections are needed on county or State roads, the Forest Service would work with the appropriate agencies to resolve the issue.	Provide protection to Federally listed NIDGS from vehicle-caused mortality.	MODERATE: research, literature, Forest Plan, agency direction, logic	TEST01 TEST02 TEST03 TEST06 TEST12 TEGU01 TEGU02 TEGU06 WIGU01 WIGU04	Timber Sale Contract, Wildlife Biologist, Timber Management Assistant, Sale Administrator, Burn Plan, Fire Management Officer
3	In harvest units with known NIDGS sites, slash piles created from harvest activities must be removed from landings not later than March 15 of the year immediately following the harvest year in each of these units.	Provide protection to Federally listed NIDGS from direct mortality from slash piles, machinery, vehicles, or slash burns.	MODERATE: research, literature, Forest Plan, agency direction, logic	TEST01 TEST02 TEST03 TEST06 TEST12 TEGU01 TEGU02 TEGU06 WIGU01 WIGU04	Timber Sale Contract, Wildlife Biologist, Timber Management Assistant, Sale Administrator, Burn Plan, Fire Management Officer

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Wildlife					
4	Known northern goshawk nests would be protected within a 30-acre forested nest stand as determined by the Wildlife Biologist in coordination with the Sale Administrator and the Timber Management Assistant. All activities within these nest stands would be restricted to those approved by the Wildlife Biologist and coordinated with the Sale Administrator and the Timber Management Assistant. During operations, if a new northern goshawk nest is located, onsite activities would be halted until a survey by wildlife staff can determine if the nest is active. A 30-acre forested nest stand would be identified, as above. If the nest is active, harvest activities in that 30 acres would be halted until the end of the nesting season (March 1 to Sept. 30). Harvest activities may resume earlier than Sept. 30 if the Wildlife Biologist determines that the birds are no longer present. All identified northern goshawk nest stands would have a post-fledgling area of at least 600 acres and a foraging area of at least 6,000 acres identified by the Wildlife Biologist in consultation with the Timber Management Assistant. Within each post-fledgling area, five other nest stands would be identified by the Wildlife Biologist. These nest stands would have the same restrictions on human activities as noted above. The post-fledgling areas and foraging areas may have other activity restrictions applied from March 1 to Sept. 30, depending on site-specific information, and as determined by the Wildlife Biologist in coordination with the Sale Administrator and Timber Management Assistant. Refer to the Project record for nest site locations and associated units.	Provide protection to northern goshawk, nests, PFAs, and foraging areas.	HIGH: research, literature, Forest Plan, agency direction, logic	WIST02 WIST03 WIST04 WIST05 WIGU01 WIGU05 WIGU06 WIGU07 Forest Service General Technical Reports RM-217 and PNW-GTR-733 as required by the Forest Plan	Timber Sale Contract, Wildlife Biologist, Timber Management Assistant, Sale Administrator, Burn Plan, Fire Management Officer

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Wildlife					
5	Any temporary roads or closed NFS roads physically opened for access to project activities that would remain open during elk rifle season would be blocked with a temporary gate or other physical closure during use and until once again permanently closed or obliterated following management activities.	Minimize negative effects on wildlife; ensure contractors and employees do not have unfair advantage during hunting seasons; minimize damage to native surface roads that could result in increased erosion and sediment delivery.	HIGH: research, literature, Forest Plan, agency direction, logic	TEST01 WIST02 WIST03 WIGU01 WIGU02 WIGU05 WIGU06 WIGU08 WIGU13 SWST04	Timber Sale Contract, Wildlife Biologist, Sale Administrator, Engineering Contract Administrator
6	In areas closed to public motorized access, prohibit contractors and their employees from access with motorized vehicles for purposes other than implementing contract or other authorized FS activities.	Minimize negative effects on wildlife; ensure contractors and employees do not have unfair advantage during hunting seasons.	HIGH: research, literature, Forest Plan, agency direction, logic	TEST01 WIST02 WIST03 WIGU01 WIGU02 WIGU05 WIGU06 WIGU08 WIGU13	Timber Sale Contract, Wildlife Biologist, Sale Administrator, Burn Plan, Fire Management Officer

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Wildlife					
7	Prior to any ground-disturbing activity, including, but not limited to, the construction of log landings, vehicle turnouts or parking areas, skid trails, road construction or maintenance, and prescribed fire, the Wildlife Biologist, or designated Wildlife Staff, must conduct onsite surveys to identify threatened, endangered, proposed, or candidate species; Management Indicator Species (MIS); or Sensitive species presence. In particular, spring surveys would be used to identify wildlife reproduction sites, such as elk calving, deer fawning, mammal denning, and bird nesting. Project activities may be altered to protect the wildlife species, as practicable, using measures approved by the Wildlife Biologist, following coordination with the Timber Management Assistant, Fire Management Officer, and Sale Administrator. Mitigate management actions within known nesting or denning sites of MIS or Sensitive Species if those actions would disrupt the reproductive success of those sites during the nesting or denning period.	Minimize negative effects on wildlife, especially during reproductive periods.	MODERATE: Forest Plan, agency direction, logic	TEST06 TEST12 TEST13 WIST03	Timber Sale Contract, Wildlife Biologist, Sale Administrator, Burn Plan, Fire Management Officer
8	Provide a radius of two elk sight distances (total of 400 feet) of vegetation (where available and practicable) to protect mineral licks and elk wallows. No harvest or prescribed burning would be allowed in these sites, without approval by the Wildlife Biologist. Exact boundaries of each protected site would be identified by the Wildlife Biologist, following coordination with the Timber Management Assistant, Fire Management Officer, and Sale Administrator.	Minimize negative effects on wildlife, address big game vulnerability to hunting mortality, and to provide adequate habitat security.	HIGH: research, literature, Forest Plan, agency direction, logic	WIGU13	Timber Sale Contract, Wildlife Biologist, Sale Administrator, Burn Plan, Fire Management Officer
9	During timber harvest, retain existing snags with the following stipulations: Timber contract provision would specify to leave standing dead trees. Snags would not be cut without permission of the Sale Administrator unless there is a safety or emergency situation.	Ensure habitat for snag-dependent species.	MODERATE: research, literature, administrative studies, logic	WIGU01	Timber Sale Layout, Contract, Administrator, Wildlife Biologist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Wildlife					
10	All activities within great grey owl nesting and rearing sites would be restricted to those approved by the Wildlife Biologist and coordinated with the Sale Administrator/TMA. A site specific silvicultural prescription will be developed by the Wildlife biologist in coordination with the District Silviculturalist, for forested stands where known great gray owl nesting and rearing sites existed. These forested stands are generally located in PVGs 6, 9, and 10 that are immediately adjacent to meadows (including wet meadows, dry meadows or other nonforested openings). Habitat requirements for the great gray owl considered within the prescription include but are not limited to timing restrictions, DWD, number of snags per acre, snag size class, conifer encroachment into opening, condition of forested stand, forest stand structure, tree species composition, and forest size class. Prior to any ground-disturbing activity, including, but not limited to, the construction of log landings, vehicle turnouts or parking areas, skid trails, road construction or maintenance, and prescribed fire, the Wildlife Biologist, or designated Wildlife Staff, must conduct onsite surveys to identify whether the great grey owl nest stand is active. During operations, if a new great grey owl nest is located, onsite activities would be halted until a survey by Wildlife Staff can determine if the nest is active.	Minimize negative effects on wildlife, especially during reproductive periods.	HIGH: research, literature, Forest Plan, agency direction, logic	TEST12 WIGO01 WIGO02 WIGO03 WIGO04 WIOB01 WIOB03 WIOB07 WIOB09 WIST01 WIST02 WIST03 WIST04 WIGU01 WIGU05	Timber Sale Contract, Wildlife Biologist, Sale Administrator, Burn Plan, Fire Management Officer

Table PDF-2. Project design features and mitigation measures for botanical resources.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Botanical Resources					
11	Prior to any ground-disturbing activity, including but not limited to, the construction of log landings, biomass storage, vehicle turnouts or parking areas, skid trails, road construction or maintenance, and prescribed fire, the Forest Botanist or designated staff must conduct on-site surveys where rare plant habitat occurs to identify Sensitive plant populations. Project activities may be altered to protect the rare species, using measures approved by the Forest Botanist and coordinated with the Timber Management Assistant, Fire Management Officer, and Sale Administrator.	Maintain or restore occupied rare plant habitat.	MODERATE: Forest Plan, agency direction, logic	TEST06 TEST12 TEST13 WIST03, BTST01 BTGU01	Timber Sale Contract, Wildlife Biologist, Sale Administrator, Burn Plan, Fire Management Officer, Forest Botanist
12	All existing rare plant populations within the activity area would be designated for protection by a Botanical Specialist prior to project implementation.	Avoid risk to rare plant sites.	HIGH: logic	BTGU01	Forest Botanist

Table PDF-3. Project design features and mitigation measures for Soil, Water, Riparian and Aquatic Resources (SWRA).

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
13	The Project IDT has selected Option 2, as directed in the Forest Plan, Appendix B (USDA Forest Service 2003a), in the step down process for Riparian Conservation Areas (RCAs). Option 2 uses two site-potential tree heights (240 feet) for perennial streams and intermittent streams providing fish habitat. One site-potential tree height (120 feet) would be applied to intermittent streams not providing seasonal fish habitat, springs, ponds, lakes, and wetlands. A 30-foot RCA distance would be applied to seeps. Any previously unmapped RCA discovered during implementation would be delineated. Limited equipment use and harvest would be allowed in the outer half of RCAs in stands identified and approved for RCA thinning as described in the RCA Thinning Guidelines (Appendix 5, FEIS). Project design features would still apply to minimize ground disturbance. No mechanized equipment, new skid trails, temporary roads, or landings would be allowed within RCAs unless evaluated and approved by the Fisheries Biologist or Hydrologist. The Hydrologist, Soil Scientist and /or Fisheries Biologist would provide required mitigations to maintain watershed condition indicators, including but not limited to chipping the landing material, rehabilitating skid trails and landings within the same year of use, and leaving trees cut during landing construction on the site as CWD. The RCA treatment prescriptions would be developed by the Silviculturist, Fisheries Biologist, and Hydrologist to ensure riparian functions and watershed condition indicators are maintained. The Wildlife Biologist would also provide input for wet meadow treatments. Any RCAs discovered during layout may be considered for treatment if they meet the intent of RCA treatments, maximum RCA treatment acres analyzed or would not be surpassed, and all Project design features and restrictions can be adhered to.	Maintain riparian function.	HIGH: experience, logic, Belt et al. 1992, McDade et al. 1990, Gregory et al. 1991	SWST01 SWST04 SWST10	Sale Administrator, Timber Sale Contract Provision, Fisheries Biologist or Hydrologist
14	Prohibit yarding of logs across perennial and intermittent streams unless fully suspended above the stream channel. Minimize skyline corridors and require full suspension within RCAs (including landslides and landslide-prone areas). Sale Administrator would coordinate with Fisheries Biologist and/or Hydrologist prior to identifying skyline corridors where felling of trees would be necessary within RCAs. These trees would be left in place outside of harvest units.	Maintain channel integrity.	HIGH: logic, experience	SWST10	Design and Layout, Contract, Administrator

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
15	No storage of fuel or refueling within RCAs unless approved by a Fisheries Biologist and/or Hydrologist. Unattended equipment should not be parked in RCAs. Timber sale contract provisions (as well as other contracts) shall require a spill response plan be included in the contract to meet state Best Management Practices (BMPs).	Minimize potential for fuel spill in stream.	HIGH: logic	SWST01 SWST04 SWST11	Sale Administrator, Harvest Inspector, Timber Sale Contract Provision, Fisheries Biologist or Hydrologist
16	No active ignition of prescribed fire in inner RCAs unless approved by Fisheries Biologist and/or Hydrologist. Instances where active ignition may occur could include areas that would minimize severity and intensity and where active ignition could take the place of fire line construction. Noncommercial thinning treatments (limbing and noncommercial understory thinning by hand) in outer RCAs would only occur in areas where prescribed fire is expected to be implemented and would not occur within riparian vegetation. No ladder fuel treatment would occur within the inner RCA unless approved by the Fisheries Biologist and/or Hydrologist. Slash produced by these treatments would be lopped and scattered or hand piled as directed by the Fisheries Biologist, Soil Scientist and/or Hydrologist. No construction of mechanical fireline shall occur in RCAs, and handline should be minimized. Promptly reclaim all fireline following burn activities. Reclamation activities shall include, but are not limited to, placing waterbars, pulling material removed (including mineral soil) back onto fireline, and pulling slash as available onto the surface. Also see project design feature (PDF) #39. All burn plans and associated treatments shall be annually reviewed by district resource specialists. Additional site-specific concerns regarding prescribed fire treatments would be addressed at that time.	Minimize loss of shade to perennial stream channels.	HIGH: experience	SWST01 SWST04 SWST07 FMGU06	Fuels Specialist, Burn Boss, Fisheries Biologist, or Hydrologist, Contracting Officer's Representative, Soil Scientist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
17	When constructing or reconstructing roads within RCAs or installing culverts on intermittent or ephemeral channels use wood straw, jute matting, or other erosion-control measures as deemed necessary by the Fisheries Biologist or Hydrologist. Add gravel or surface 100 feet of new or reconstructed roads on either side of intermittent and perennial streams where necessary.	Minimize sediment delivery to channel.	HIGH: experience, logic, Burroughs and King 1989, Foltz 2007	SWST01 SWST04	Timber Sale Contract, Sale Administrator, Harvest Inspector Fisheries Biologist, Hydrologist, Engineering Representative
18	Roads identified for obliteration, including unauthorized roads used as temporary roads as well as those being obliterated for soil and water restoration, would be decompacted to the depth of compaction, recontoured, blended with the surrounding terrain, seeded with native seed (where need is identified), and provided with a minimum of 50% to maximum of 80% ground cover (vegetation transplants at a rate of 15 per 100 linear feet, natural mulch, coarse woody debris (CWD), and agricultural or wood straw, in that order of preference) to an extent deemed necessary by a Fisheries Biologist and/or Hydrologist. In addition to the above treatment, stream crossings would receive planted vegetation plugs and additional ground cover to an extent deemed necessary by a Fisheries Biologist and/or Hydrologist, to reduce erosion, facilitate recovery of soil biological function and stabilize streambanks. Retained travelway would be effectively closed at entrance to prevent unauthorized use. Winterize temporary roads that would be retained until reforestation and biomass activities are completed. Install drainage features to control runoff and reduce erosion; *these features should be inspected annually after each winter to ensure they are still effective for the life of the road (less than 3 years).* Newly constructed temporary roads would not require vegetation transplants. Temporary roads would be fully obliterated within 3 years of harvest unless otherwise agreed to in writing.	Minimize sediment delivery to channel and rehabilitate riparian area; reduce levels of total soil resource commitment.	HIGH: experience, logic, Burroughs and King 1989, Foltz 2007; experience, local monitoring	SWST01 SWST04 SWST03(b) SWST08	For Temporary Roads–Sale Administrator and/or Harvest Inspector For All Roads–Timber Sale Contract Provisions, Hydrologist, Soil Scientist, Fisheries Biologist, Wildlife Biologist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
19	If snow conditions allow, use a snow bridge as an alternative to road construction and culvert placement. Where a temporary culvert is needed in a temporary road, it would be removed within the same field season unless approved by the Fisheries Biologist and/or Hydrologist.	Minimize sediment delivery to channel and rehabilitate riparian area; reduce levels of total soil resource commitment.	HIGH: experience, logic, Burroughs and King 1989, Foltz 2007, experience, local monitoring	SWST01 SWST04 SWST03(b) SWST08	Sale Administrator, Harvest Inspector Timber Sale Contract Provisions
20	Closed Maintenance Level (ML) 1 roads temporarily opened for vegetation management that are proposed to return to ML 1 closure would have: entrance recontoured, crossings removed, cut and fill recontoured at stream crossings, vegetation transplants at crossings, drainage features installed and scarifying and reseeding to promote revegetation when vegetation management actions are completed. The PDFs for culvert replacements would be applied to culvert installations and post-treatment culvert removal on re-constructed closed ML 1 roads (described above and in the Project Biological Assessment, located in the Project record). Roads not identified for long-term closure that may be needed for administrative use in the more immediate future would be closed by installing water bars as needed, where needed, and physically closing to prohibit motorized use.	Reduce long term sediment production.	HIGH: logic, experience, local monitoring, Foltz and Maillard 2003	SWST01 SWST04 SWST08	Fisheries Biologist, Soil Scientist, Hydrologist, Engineering Representative
21	All new permanent road construction and reconstruction where cuts and fills are disturbed would require placing slash windrows and/or erosion control measures (e.g., hydroseeding and mulching) where erosion is identified as a concern, such as within contributing areas at all perennial and intermittent crossings and exposed steep cutslopes. Add gravel or surface 100 feet on either side of intermittent and perennial channels on all new construction except where it is determined that existing shallow, rocky soils would provide sufficient protection from erosion. Spot rocking and armored dips would also be incorporated into road designs by project engineers.	Reduce long term sediment production.	HIGH: experience, logic, Belt et al. 1992	SWST01 SWST04 SWST08	Engineer, Hydrologist, Soil Scientist, Fisheries Biologist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
22	Install culvert or other crossing structures on natural channels after spring peak flows; the Fisheries Biologist or Hydrologist would determine when dewatering the channel is necessary. For permanent culverts, incorporate elements of the natural channel, such as substrate size and gradient, when reconstructing the channel where fish habitat or potential fish habitat exists. The following permits shall be acquired prior to project implementation: Variance letter to exceed turbidity levels from Idaho Department of Environmental Quality, Stream Channel Alternation Permit from Idaho Department of Water Resources. In addition, a 404 Dredge and Fill Permit would be obtained from the United States Army Corps of Engineers.	Minimize effects to fish and fish habitat.	HIGH: logic, experience	NA	Fisheries Biologist Hydrologist, Engineering Representative
23	Stream channels shall be dewatered prior to in-stream work with heavy machinery. The stream would likely be diverted using a temporary corrugated plastic or metal pipe and a temporary cofferdam. If water drafting is necessary, screen opening size would be the standard 3/32-inch or smaller (as required by the Forest Plan; USDA Forest Service 2003a). The culvert design team would specify stockpiling and staging areas; access to the site would be via an established roadway. Some trees may have to be felled within the RCA to complete construction; however, the number of trees cut shall be minimized to the extent possible and felled trees will be left intact as CWD/Large Woody Debris (LWD).	Minimize effects to fish and fish habitat.	HIGH: logic, experience	NA	Fisheries Biologist Contract Administrator, Hydrologist, Engineering Representative
24	Block nets shall be installed, and fish observed within the project area would be cleared from the area using dipping, seining, and/or electrofishing methods. Fish would be transported to an unaffected portion of the creek above the in-stream work and released. Block nets would be removed after fish removal.	Minimize effects to fish and fish habitat.	HIGH: logic, experience	NA	Fisheries Biologist, Engineering Representative, Contract Administrator

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
25	During culvert installation activities on natural channels, a spill-containment kit would be available on-site that would accommodate potential spills from the equipment used during implementation. No fuels would be stored in RCAs unless there is no other alternative. Refueling or servicing of vehicles or equipment would not take place in RCAs. All equipment would be in good repair and free of leakage of lubricant, fuels, coolants, and hydraulic fluid. In-stream work with heavy machinery would be minimized to the extent possible. Detectable sheens shall be reported to the Environmental Protection Agency, and any spills over 25 gallons shall be reported to Idaho Department of Environmental Quality.	Minimize effects to water quality.	HIGH: logic, experience	SWST01 SWST04 SWST11	Contract Administrator, Hydrologist, Fisheries Biologist, Engineering Representative
26	During culvert installation and construction of new trail crossings, Sedimats or similar containment system would be placed within the natural channel to collect released fine sediments and minimize effects to downstream segments. These would be removed from the channel at the conclusion of Project activities. Sediment-control measures may also include erosion-control matting, mulch, straw wattles, straw bales, and/or slash. The culvert/bridge installation and associated activities would be conducted in a manner that would minimize the potential for input of additional fine sediment or effecting riparian habitat; the Forest Service shall design a site-specific erosion-control plan that suits the contracted activity. For Aquatic Organism Passage (AOP) culverts, stream simulation material would be washed (i.e., sprayed with water using pump and hose setup), to set fine material prior to reintroduction of flow. Flow would slowly be reintroduced into the streambed to minimize loss of downstream surface water and to minimize turbidity.	Minimize effects to water quality.	HIGH: logic, experience	FRST05	Contract Administrator, Hydrologist, Fisheries Biologist, Soil Scientist, Engineering Representative
27	Culvert replacement/removal site rehabilitation may include seeding and mulching disturbed areas and planting with native vegetation. Straw wattles may also be used to stabilize the road fill. All project-related materials and waste shall be removed from the site when construction is complete.	Reduce erosion.	HIGH: logic, experience	NA	Contract Administrator, Hydrologist, Fisheries Biologist, Engineering Representative

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
28	During installation of the vault toilets, if located in RCAs, follow programmatic consultation.	Reduce erosion.	HIGH: logic, experience	NA	Contract Administrator, Hydrologist, Fisheries Biologist, Engineering Representative
29	Locate and approve water drafting sites prior to use. The project Fisheries Biologist and/or Hydrologist must approve the sites. No vehicles allowed in stream courses at any time for the purpose of withdrawing water. Drafting hoses would be required to be fitted with screens with a 3/32-inch mesh.	Minimize impacts to stream channels, RCAs, and fisheries.	HIGH: logic, experience	SWST01	Contract Administrator, Engineering Representative, Fisheries Biologist, Hydrologist
30	New trail crossings (including fords and bridges) associated with the trail reroutes would be designed to allow passage of all aquatic organisms and shall comply with SWST08. Armor potential erosion sites (e.g., trail approaches) with appropriate rock or other erosion-control measure. Select the site for the crossing to minimize effects to aquatic resources. Follow bridge/culvert Project design features outlined above if the crossing would involve a bridge.	Allow passage of and minimize effects to aquatic organisms.	HIGH: logic, experience	SWST08	Fisheries Biologist, Hydrologist, Recreation Specialist, Contract Administrator
31	Utilize all applicable BMPs and Soil Water Conservation Practices for harvest and road activities.	Reduce/limit levels of soil disturbance, erosion and potential sedimentation; meet requirements of State of Idaho Non-point Source Pollution Management Plan; maintain water quality and associated beneficial uses.	HIGH: National Core BMP Technical Guide, Vol. I (FS-990a); local monitoring	SWST01 SWST02 SWST03 SWST04 SWGU08	Timber Sale Design and Layout, Sale Administrator

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
32	<u>Ground-Based Harvesting</u> Specific soil impacts from harvest activities will be judged according to monitoring definitions set forth in the national Forest Soil Disturbance Monitoring Protocol (FSDMP). Areal soil impacts within units will be considered within the primary context of maintaining hillslope soil hydrologic function, captured in the Forest Plan. **All ground-based harvesting use cases** Ground-based mechanized harvesting equipment will be considered only when: • Soil moistures are sufficiently low that unacceptable soil rutting, displacement, and compaction, per national soil monitoring protocol indicators (FSDMP), would not occur OR • Soil is frozen to a depth of 6 inches, OR • Soil is armored with minimum 8 inches of packed snow, OR • Soil is armored with minimum 16 inches of unpacked snow OR • Soil moisture is below 20% (determined when soil is dry to the touch and does not form a ball when pressure is applied by hand) The Forest Service will determine when these conditions exist. *In addition,* **Feller-buncher (or other noncabled harvesting systems)** • Harvesting equipment is allowed to traffic portions of units up to 35% slope • On fine-textured soils, harvesting equipment may traffic up to 45% slope for short distances (<200 feet) to accommodate stepped hillslope terrain. Longer distances (>200 feet) may be allowed with approval of the Forest Service Soil Scientist. **Off-Road Jammer** • Where ground-based harvesting equipment is restricted, logs will be winched to designated skid trails or processing areas.	Minimize soil disturbance from heavy machinery.	HIGH: logic, experience, local monitoring, Cambi 2015, Reeves 2011, Powers et al. 2005, Page-Dumroese et al. 2009a, 2009b	SWST02	Timber Sale Design and Layout, Soil Scientist, Timber Sale Administrator, Timber Sale Contract,

33	<u>Skid Trails and Skidding</u> Specific soil impacts from skidding activities will be judged according to monitoring definitions set forth in the national FSDMP. Areal soil impacts within units will be considered within the primary context of maintaining hillslope soil hydrologic function, as described in the Forest Plan. Reuse of relict skid trails and landings should be favored. Terrain and landing locations should be considered when planning new skid trail types and locations. Constructed skid trails are physically akin to temporary roads and, therefore, should be kept to a minimum, with consideration given to other log-retrieval options including nonconstructed skid trails and skyline systems. **All skidding use cases** • All skid trails must be designated and preapproved by the Forest Service before timber-felling operations begin • Skidding equipment must remain on skid trails <u>Soil Moisture Requirements</u> o Soil moistures must be sufficiently low that unacceptable soil rutting, displacement, and compaction, per national FSDMP indicators, would not occur OR o Soil must be frozen to a depth of 6 inches, OR o Soil must be armored with minimum 8 inches of packed snow, OR o Soil must be armored with minimum 16 inches of unpacked snow OR o Soil moisture must be below 20% (determined when soil is dry to the touch and does not form a ball when pressure is applied by hand) The Forest Service will determine when the above conditions exist. *In addition to the above,* **Skidding on nonconstructed skid trails** • Trails will be spaced an average minimum distance of 100 feet • Skidding allowed on slopes up to 35% • On fine-textured soils, skidding may be allowed up to 45% slope for short distances (< 200 feet) to accommodate stepped hillslope terrain and as an alternative to constructed skid trails, with approval of Soil Scientist	Minimize potential for detrimental soil disturbance from heavy machinery.	HIGH: logic, experience, local monitoring, Cambi 2015, Reeves et al. 2011; Powers et al. 2005	SWST02	Timber Sale Design and Layout, Sale Administrator, Soil Scientist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
	Skidding on constructed skid trails • Construction (i.e., benching) of skid trails allowed when harvesting hillslopes up to 45% slope gradient • Constructed trails will not exceed 30% road grade, except for short distances. Steeper constructed skid trail grades may be approved by Soil Scientist • Constructed trails will be spaced an average minimum distance of 200 feet **Off-trail skidding** • In units where hand felling is required specifically for oversized trees, the Soil Scientist may approve limited use of skidding tractors off of designated trails to skid these oversized trees on hillslopes less than 35%. • In units where residue retention is favored, the Soil Scientist may approve use of mechanized travel off of designated trails to redistribute harvest cull materials. These instances should be in alignment with Forest Plan Standards for maximum allowable soil detrimental disturbance (USDA Forest Service 2003a).				

34	<u>Harvest Activity Impact Remediation</u> *Remediation will occur within 1 year following harvest activities.* Areas of relict soil compaction outside of designated skid trail network and identified during implementation are candidates for remediation, as determined by the Forest Service. Constructed skid trails, landings, and temporary road surfaces will be considered total soil resource commitment (not detrimental soil disturbance) until remediated. **Decompaction/Subsoiling** Subsoiling is inherently destructive to the soil profile and should be implemented judiciously for the primary purpose of restoring soil porosity and reducing soil strength. Compaction—directly observed or inferred from the number of passes by machinery—will be the primary determinant of the depth and extent of subsoiling in all instances. Unless otherwise agreed in writing (i.e., some landings may be retained as dispersed camping sites): • Subsoiling techniques will emphasize slight lifting and fracturing, not plowing or mixing, to a maximum depth of 16 inches and spanning the entire width of the compacted surface. Constructed skid trails, landings, and temporary road surfaces will be decompacted in full and recontoured in to natural slope profile. Exceptions to decompacting and recontouring may be permitted, per the Soil Scientist, due to operational infeasibility. *Skid trail and landings will be rehabilitated within 1 year of completion of harvest in that unit.* • Nonconstructed skid trails will be fully subsoiled to a minimum distance of 200 feet from landings UNLESS o Impacts are mainly limited to track ruts and the centerline of the skid road is not compacted and still vegetated. In these instances, subsoil only within defined track ruts. o Subsoiling would fracture the roots of tree greater than 8 inches diameter breast height. This is typically defined by the tree drip line, or a set radius around such trees would be determined by the Forest Service. **Soil Displacement Rehab** Displaced mineral soil will be pulled back according to the below. On slopes greater than 35% this pull back must be completed by hand. • When mechanical soil displacement exposes one-half of the vertical thickness of the mineral soil surface horizon, OR	Drive post-disturbance soil recovery; minimize newly created or existing areas of total soil resource commitment and detrimental disturbance .	HIGH: Research, logic, experience, local monitoring, Certini 2005, Powers et al. 2005, Han et al. 2009		Timber Sale Administrator, Timber Sale contract, Soil Scientist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
	• in ruts with berms longer than 10 feet				

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
34	**Soil Cover** • Forest residues should be replaced as protective cover on *all disturbed components of the harvest system network* at loads and distributions resembling the PVG being managed. When in doubt, cover should 50-80%, OR the minimum amount necessary to inhibit overland flow. • Soil cover remediation should favor harvest residue recycling (PDF 35) to enable integrated soils/fuels/ecology objectives, as coordinated with fuels colleagues. • Coarse woody debris objectives (PDF 38) will be met. On skid trails coarse wood shall be arranged leaving a 3 to 6-foot opening every 100 feet (+/- 20 feet) at existing trails if available. • On landings used to process wood chips, depth of residual chip material should not exceed 4 inches prior to obliteration. o Waterbar if needed.				

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
35	Harvest Residue Recycling *This 'demonstration' PDF will be favored in implementation, with candidate units predetermined during layout.* Harvest waste byproducts intended for large landing pile burns will be sorted at landings into fine (<4 inch) and coarse (>4 inch) residues for the following uses. This PDF will not substitute for CWD objectives and requirements (PDF 38). **Coarse residues** would be made available to public for firewood at sorting location, or transported to other publically accessible location as needed (e.g., via service contract) **Fine materials** will be redistributed within units *as soil-building substrate for subsequent broadcast burn*, according to the following: • Determination of candidate units will proceed in collaboration with Fuels Management Specialist, Soil Scientist, and Timber Management Assistant. • Soil Scientist may approve mechanized travel off of designated trails in service of this specific PDF provided Forest Plan Standards for maximum allowable soil detrimental disturbance are met (SWST04). • Target loading rates of returned material will be determined according to PVG and integrated fire/soils/ecology objectives. • Residues should be scattered, not piled, unevenly, in manner that facilitates subsequent broadcast burn. • Residues should be scattered preferentially across harvested openings when possible. • Residue mats near base of leave trees should be avoided to preserve shallow live roots during broadcast burn.	Increase stand resilience by buffering belowground moisture and temperature conditions (TRGO01). Increase ecological use of prescribed fire (FMOB02, FMOB04). Divert harvest byproducts from burn piles and towards value-added products (TRBO03). Enhance soil-hydrologic processes soil C sequestration (SWOB03 SWOB16).	HIGH Logic Experience Hungerford 1980 Jurgensen et al. 1997	FMGU03 TRGU02 SWST04	Timber Sale Design and Layout, Soil Scientist, Fuels Management Specialist
36	Cable Yarding Remediation Reclaim disturbed skyline/cable corridors by pulling soil berms back to original configuration and scattering slash (as available) on all areas of soil disturbance to provide for minimum of 50% to a maximum of 80% effective cover where available. Ensure that surface runoff is not directly channeled into skyline corridors from landing areas. Rehabilitation will be done within one calendar year of harvest.	Reduce potential for erosion, rutting, and detrimental soil disturbance in corridors; facilitate revegetation.	HIGH: logic, experience, local monitoring	SWST01 SWST04 SWGU05	Timber Sale Administrator, Timber Sale Contract

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
37	Improve road drainage (installing water bars/dips, cleaning relief culverts, etc.) as needed on all roads used for harvest activities pre-haul, during, and post-haul. Minimize disturbance to existing vegetated ditch lines if already properly draining to avoid undue soil disturbance that could increase ditch erosion and sedimentation into streams.	Reduce road-related sediment inputs; improve road surface conditions.	HIGH: logic, experience, Burroughs and King 1989	SWST01 SWST04 SWGU08	Project Engineer, Timber Sale Road Package, Contract Provision

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
38	<u>Coarse Woody Debris</u> Retain total amounts of CWD as evenly distributed as possible in the tonnages and diameters described below and in 6-foot or greater lengths (if tonnages and/or sizes are unavailable, then assure that trends toward desired conditions are achieved). Total tonnage is measured following the completion of all activities and must retain the percentages of the large-sized CWD (greater than 15-inch diameter) identified in the Forest Plan (Forest Plan, Appendix A, page A-9, Table A-9; USDA Forest Service 2003a). • For PVGs 2 and 5: retain CWD in amounts of 4–14 tons per acre with at least 75% of the tonnage provided from CWD that is greater than 15 inches in diameter. • For PVGs 3, 4, and 6: retain CWD in amounts of 4–14 tons per acre with at least 65% of the tonnage provided from CWD that is greater than 15 inches in diameter. • For PVG 7: retain CWD in amounts of 5–19 tons per acre with at least 50% of the tonnage provided from CWD that is greater than 15 inches in diameter. • For PVGs 8, 9, and 10: retain CWD in amounts of 5–19 tons per acre with at least 25% of the tonnage provided from CWD that is greater than 15 inches in diameter. • For PVG 11: retain CWD in amounts of 4–14 tons per acre with at least 25% of the tonnage provided from CWD that is greater than 15 inches in diameter. If needed for meeting CWD tonnages, all available cull material over 8 inches large-end diameter and longer than 6 feet or other noncommercial material (e.g., decked firewood) shall be utilized to meet the CWD requirement. Preference should be given to larger-diameter material to meet these requirements. A contract provision requiring CWD to be returned from the log landing to the harvest unit would be utilized in tractor units where CWD deficiencies are identified prior to contract preparation.	Maintain CWD for long-term site productivity and for wildlife species.	HIGH: Graham et al. 1991, 1994	SWST04	Timber Sale Contract, Administrator, Soil Scientist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
39	<u>Prescribed Fire</u> Prescribed burn activities should employ the following techniques to minimize the degree and extent of soil damage: • **Broadcast burn** techniques should favor low soil burn severity by promoting incomplete forest floor consumption, and avoiding prolonged (>6 hour) smoldering of matted fuel beds greater than 3 inches thick. Some incidental moderate soil burn severity is expected and acceptable provided it is not spatially extensive. When shallow root mortality risks meeting landscape ecology objectives, or when fuel loading is heavy (>10 trees/acre 0-10 inch CWD), broadcast burns should be timed to co-occur with >20% mineral soil moisture. • **Pile burning** generally results in moderate to high soil burn severity based on pile size diameter. To minimize their effects within treatment units, piles should be <10 feet in diameter and well dispersed. Larger piles on landings should be decked on logs to create an insulating air cushion, or subsequent burn scars restored according to TSRC restoration guidelines. • **Site Preparation** burns that entail near-complete combustion of postharvest forest residues over extensive areas are generally inconsistent with Forest Plan and regional soil quality Standards on soil cover, nutrient losses, and thermal impacts. This site preparation technique will only be permitted with approval of Soil Scientist. • **CWD** will be retained at the desired condition or maintained at existing levels if presently below the desired condition (see descriptions by PVG above), as much as practicable. • **Fireline reclamation** will occur following burn activities. Reclamation activities would include, but are not limited to, pulling all material removed for fireline construction back onto fireline (including mineral soil as available), pulling available slash onto the surface to achieve a minimum 50% ground cover of the disturbed soil, and constructing waterbars as necessary.	Maintain CWD for long-term site productivity and for wildlife species.	HIGH: Certini 2005, Busse 2014, Graham et al. 1991, 1994	SWST04	Prescriptions for Prescribed Burn, Fuels Specialist, Soil Scientist

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Soil, Water, Riparian and Aquatic Resources					
40	<u>Landslide Prone (LSP) Terrain</u> Management activities located on clusters of high- and moderate-risk landslide prone areas (per PNF LSP map) or on other susceptible landforms (field-verified by Soil Scientist if possible), will maintain landform stability in the following ways: • Limit harvested gap openings to 20 meters diameter between clumps of established conifers. • Avoid any pile burning and root mortality from broadcast burning (PDF 39). • Favor longer-lived species such as ponderosa pine and Douglas-fir, where ecologically appropriate. • Avoid road and skid trail construction on LSP areas, and avoid concentrating water onto LSP areas from road drainage.	Reduce potential for landslides by avoiding earthwork and favoring root reinforcement.	HIGH: Moos et al. 2016, Roering et al. 2003, Sidle 1992, Shaub 2001, Burroughs and Thomas 1977, Megahan 1977	TRST05 SWST12 SWGU04	Road Layout and Road Design Package, Timber Sale Layout and Marking, Prescriptions for Prescribed Burn, Soil Scientist, Fuels Specialist

Table PDF-4. Project design features and mitigation measures for rangeland.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Rangeland					
43	Protect range improvements such as fencing and water troughs from prescribed fire.	Protect improvements.	HIGH: logic	N/A	Fuels Specialist, Burn plan.
44	Per "The Payette National Forest Noxious Weed and Poisonous Plant Control Program EA and DN", treat populations of noxious weeds found in the planning area. Control measures may include spraying, biological controls, or other methods as needed (USDA Forest Service 1987).	Control noxious weeds.	HIGH: fact, experience	NPST10 NPGU01 NPGU05	Range Specialist
45	In order to prevent the potential spread of noxious weeds into the project or treatment areas, Forest Service contractors associated with project activities would clean all off-road equipment prior to entry onto the treatment area. When working in treatment areas identified as containing weed infestations, contractors would be required to clean equipment before leaving and moving to a new treatment area. This cleaning would remove plants, dirt, and material that may carry noxious weed seeds.	Limit the risk of new infestations of noxious weeds into the area.	HIGH: fact, experience	NPST03 NPST04 NPGU03	Timber sale contract, Administrator

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Rangeland					
46	Any materials such as mulches and straw used for rehabilitation, reclamation, etc., would be free of noxious weed seeds and comply with the 2003 “Weed Free Hay Order” against the use of noncertified hay, straw, or mulch. Materials not covered in the special order, which have the potential to contain noxious weed seed, would be inspected and determined to be weed seed-free before purchase and use. Certification that these materials are free of noxious weed seed would be done by qualified individuals, such as the Idaho Seed Lab, County Weed Supervisor, or Forest Service Noxious Weed Management Specialist.	Limit the risk of new infestations of noxious weeds into the area.	HIGH: fact, experience	NPST01 NPST02 NPST03 NPST06	Soil Scientist, Range Specialist.
47	Source sites for gravel and borrow materials would be inspected before materials are used or transported. If noxious weeds are present, they would be treated to prevent seed production before use or transport. The source would not be used if noxious weed species were present that are not currently found at the site unless effective treatment or other mitigation measures identified by the District Ranger are implemented. Written documentation of the inspection by county weed agents, Forest Service Noxious Weed Management Specialists, or other individuals who the Forest Service stipulates are qualified would be required before materials are used.	Limit the spread of noxious weeds in the Project area.	HIGH: fact, experience	NPST07 NPST08 NPGU02	Range Specialist, Botanist, Engineer, Administrator.

Table PDF-5. Project design features and mitigation measures for threatened, endangered, proposed, candidate, and sensitive species.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Threatened, Endangered, Proposed, Candidate Species and Region 4 Sensitive Species					
48	Ground-disturbing activities would be stopped in any areas where previously unknown listed or sensitive fish, wildlife, or botanical species are discovered until a Fisheries Biologist, Wildlife Biologist, or Botanist, respectively, reviews the affected area and prescribes appropriate mitigation to ensure protection of the species.	Provide protection to threatened, endangered, and sensitive species.	MODERATE: logic	TEST01 TEST02 TEST03 TEST06 TEST12 TEST13 TEGU01 TEGU02 TEGU06 WIST02 WIST03 WIST06 WIGU01 WIGU05 WIGU06 WIGU07	Fish Biologist, Wildlife Biologist, Botanist, Sale Administrator, Burn Plan, Fire Management Officer.

Table PDF-6. Project design features and mitigation measures for forested vegetation.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Forest Vegetation and Timber					
49	Following harvest and prescribed burning operations, the larger aspen stands would be evaluated for the need to protect aspen regeneration from damage by cattle, deer, and elk. Possible protection measures would include temporary electric fencing or rough windrow fencing using felled aspen trees.	Protect aspen regeneration from large animal damage.	HIGH: experience, logic	VEGO04 VEGO05 VEGO06	Silviculturist and Wildlife Biologist would evaluate and implement with available resources or contracts.
50	Use the bark beetle (Scolytidae) contract provision for stands where substantial amounts of ponderosa pine would be harvested, if the proposed unit is near a plantation with a component of ponderosa pine.	Minimize bark beetle population buildup.	HIGH: experience, logic	TRGO01	Timber Sale Contract, Sale Administrator
51	Include a timber sale contract provision that requires firewood to be made accessible to the public by requiring firewood to be decked separate from slash piles and in locations where removal would be practical.	Provide firewood gathering opportunities for the public	HIGH: logic	TRGO04	Timber Sale Contract, Sale Administrator
52	In each treatment unit, CWD (tons per acre) shall be evaluated to ensure desired ranges based on PVG. If necessary, material would be left behind of the appropriate size classes to meet Standards (PDF 38). When CWD in the larger size classes is not available for retention in an activity area, smaller size classes may be utilized to meet desired conditions described in Forest Plan, Appendix A **(**USDA Forest Service 2003a). These smaller size classes should only be utilized when the resulting fire hazard risk would remain within defined fuels management objectives.	Maintain Forest Plan consistency.	MODERATE to HIGH: experience	VEGU03	Silviculturist Contract Administrator Fire Management Specialist Silvicultural Prescription Contract Burn Plan

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Forest Vegetation and Timber					
53	Management activities shall emphasize: Leaving all dead standing trees (snags), unless falling is necessary for safety. Retaining snags away from roads to reduce the potential for removal.	Maintain snags for long-term site productivity and wildlife species.	HIGH: experience	VEST01	Silviculturist Contract Administrator Fire Management Specialist Silvicultural Prescription Contract Burn Plan
54	Sufficient live trees of appropriate size should be retained for future CWD and snag recruitment where CWD or snag levels are below desired ranges (to meet Appendix A of the Forest Plan; USDA Forest Service 2003a).	Move toward desired CWD and snag levels.	MODERATE to HIGH: experience	VEGU03	Silviculturist Fire Management Specialist Silvicultural Prescription Burn Plan
55	Retain forest stands that meet the definition of large tree size class. Management actions are permitted in such stands as long as they would continue to meet the definition of a large tree size class stand.	Ensure movement toward desired tree size objectives defined in the Forest Plan for PVGs 2 and 5.	HIGH: experience		Silviculturist, Contract Administrator, Fire Management Specialist, Silvicultural Prescription, Contract, Burn Plan
56	Prior to decommissioning routes or completing long-term closure activities, approval by the District Timber Management Assistant or Silviculturist shall be obtained to ensure that utilization of these routes for access, haul, and/or skid trail is not necessary to complete any planned or proposed vegetation treatments.	Utilize existing routes to complete vegetation treatments.	MODERATE to HIGH: experience	N/A	Hydrologist/Soil Scientist/ District Timber Management Assistant

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Forest Vegetation and Timber					
57	All acres treated with mechanical or prescribed fire treatments require a silvicultural prescription.	Ensure movement toward desired conditions to meet stand objectives.	MODERATE: experience	N/A – Forest Service Manual/Handbook Direction	Silviculturist, Fire Management Specialist, Silvicultural Prescription, Burn Plan

Table PDF-7. Project design features and mitigation measures for legacy trees/old forest.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Legacy Tree/Old Forest					
58	Ponderosa pine, western larch, and Douglas-fir that fit the definition of legacy trees should be retained during harvest. See Appendix 7 of this document for legacy tree guidelines for the Project.	Retain/maintain early seral legacy trees for ecological function, diversity and wildlife habitat.	HIGH: logic, experience	N/A—Appendix 7	Timber Sale Contract, Wildlife Biologist, TMA, Contract Administrator, Burn Plan, Fuels Specialist
59	Retain/maintain forest stands that meet the definition of old forest as defined in the Forest Plan, Appendix A (USDA Forest Service 2003a). Management actions are permitted in such stands as long as they would continue to meet the desired conditions	Retain/maintain old forest characteristics, such as legacy trees, snags, and CWD appropriate for the forest type.	HIGH: logic, experience	N/A – Appendix A of the Forest Plan	Silvicultural Prescription, Silviculturist, Wildlife Biologist

Table PDF-8. Project design features and mitigation measures for air quality.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Air Quality					
60	Identify sensitive areas for smoke impacts and coordinate all burning with Montana/Idaho State Airshed Group.	Avoid smoke immersion into nonattainment or sensitive areas.	HIGH: logic, experience	ASGU02	Burn Plan, Fuels Specialist

Table PDF-9. Project design features and mitigation measures for cultural resources.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Cultural Resources					
61	Project activities shall follow stipulations agreed to in Memoranda Of Agreement with the State Historic Preservation Office (SHPO) per 36CFR800.4 (b)(2). The stipulations shall include but are not limited to the following requirements prior to implementation of individual projects: • Avoid all cultural resource sites during project implementation unless alternative treatments are developed and agreed to by all consulting parties. • All known sites would be monitored and flagged prior to implementation to ensure avoidance. • If existing surveys are determined to be inadequate, inventories would be conducted according to the Secretary of the Interior's standards, and a secondary consultation with Idaho SHPO and appropriate SHPO approval would be required for: o Log and biomass landing construction o Proposed Timber Harvest Units o Prescribed fireline construction o Newly constructed temporary roads o Road decommissioning o Proposed recreation actions o Fish passage barrier improvements and associated road rehabilitation	Prevent damage to cultural resource sites.	HIGH: experience	N/A	Timber Sale Contract, Burn Plans, Forest Archaeologist Burn Boss, Contract Administrators

Table PDF-10. Project design features and mitigation measures for recreation and visual quality.

#	Project Design Feature	Objective	Effectiveness and Basis	Applicable Forest Plan Standard/Guide	Enforcement
Recreation and Visual Quality					
62	Ridgeline silhouettes should not have unnatural-appearing breaks along them.	Meet visual quality objectives.	MODERATE: logic	SCGU06	Layout Forester
63	Install adequate drainage structures in new trail construction and ensure sediment transport is minimized where trails are located within RCAs, as per Forest Service Trail Construction Specifications. Stream crossings shall comply with Forest Plan Standard SWST 08 (USDA Forest Service 2003a).	Provide water quality protection during trail construction.	HIGH: logic, experience	REST02	Recreation Staff, Engineer
64	Where necessary, restrict log hauling during periods of high recreation use, such as the opening day of big game hunting season.	Provide restrictions for public safety.	MODERATE: logic	N/A	Contract Administrator, Contract
65	During the week the Forest shall close and sign groomed snowmobile routes in the project area that are being used as timber hauling routes. The routes would be open to snowmobiles on Saturdays and Sundays. All log-hauling activity would be stopped after 10 pm on Friday and reopened Monday morning. If logging contractor vehicles are used to fuel or maintain equipment over the weekend, warning signs would be placed prominently so that snowmobilers would be aware that they may encounter vehicles on the road even on weekends. The Forest shall post reduced speed limits in the shared use areas. The Forest shall post signs and maps in parking and chain-up areas alerting snowmobiles coming into the logging area to the activities and potential hazards in the area. Contractors operating on groomed snowmobile routes should contact Adams County for required permits.	Ensure safety of snowmobilers during log hauling.	HIGH: Logic	REOB08 REOB20 REOB23 REGU23 REGU26	Contract Administrator, Contract
66	The Forest shall add protection measures for existing NFS trails in all timber sale contracts; annual operating plans for grazing, mining, and special use authorizations; and prescribed fire implementation documents; and reestablish any trail heads lost to these proposed activities.	Provide trail protection.	HIGH: Logic	REGU26	Inspection by Recreation Specialist

ATTACHMENT 2- ERRATA TO RECORD OF DECISION

Item 1 - No Business Creek Bull Trout Adaptive Management Strategy

The MFWR DEIS disclosed that there have been anecdotal accounts of bull trout in the drainage; however, intensive fish surveys have not found any bull trout. Through 2015, significant effort had been made to determine if bull trout are present in the MFWR drainage. Over the last 17 years 275 snorkel/electrofishing surveys and 11 eDNA samples collected throughout the drainage, covering about 18 miles of streams, did not observe bull trout. Only one snorkel survey in 1994 (below the Middle Fork Weiser River Falls) documented one bull trout.

In 2016 the Idaho Conservation League (ICL) partnered with the Forest Service to collect 19 eDNA samples following the Rangewide Bull Trout eDNA Project in the MFWR drainage. In February 2016 the Payette National Forest received the results. One sample from No Business Creek came back positive for bull trout although two other samples further downstream were negative for bull trout. Figure 1 displays all fish presence absence samples in the No Business Creek drainage.

The DEIS and FEIS discloses that due to the absence of bull trout and bull trout in the MFWR drainage, activities in the MFWR are a "no effect" for bull trout. Given this new information an adaptive management strategy has been developed along with a determination of may affect, not likely to adversely affect bull trout for the entire project including activities in the MFWR drainage.

Adaptive Management Strategy:

In 2017, 10 eDNA samples will be collected in No Business Creek from the confluence with the MFWR upstream to where the creek is known to be non-fish bearing. These samples will be used to verify the positive result from 2016. A sample will be collected every 240 meters (known distance for eDNA certainty, Jane et al. 2015) and processed for the presence of bull trout eDNA. See Figure 1 for those approximate locations. The results of those 10 samples will be used in the following way.

<u>Any sample positive</u> – The RCA treatments identified in the No Business Creek drainage will be removed from the Selected Alternative. This would remove 475 acres RCA treatment. This is consistent with the Mill Creek-Council Mountain and Lost Creek-Boulder Creek Landscape Restoration Projects where drainages support bull trout. This 475 acres includes:

- 49 acres of inner RCA and 18 acres outer RCA wet meadow treatment
- 157 acres conifer removal in aspen stands
- 33 acres commercial thin–free thin
- 86 acres free thin–patch cut–modified shelterwood
- 10 acres shaded fuelbreak
- 8 acres vegetation treatments in stands of low site quality
- 29 acres dry nonforested vegetation treatments
- 28 acres commercial thin /mature plantation
- 11 acres noncommercial thin
- 46 acres restoration in burned areas/plantation
- <u>All samples negative</u> – Treatment would continue to occur as described in the *Selected Alternative*.

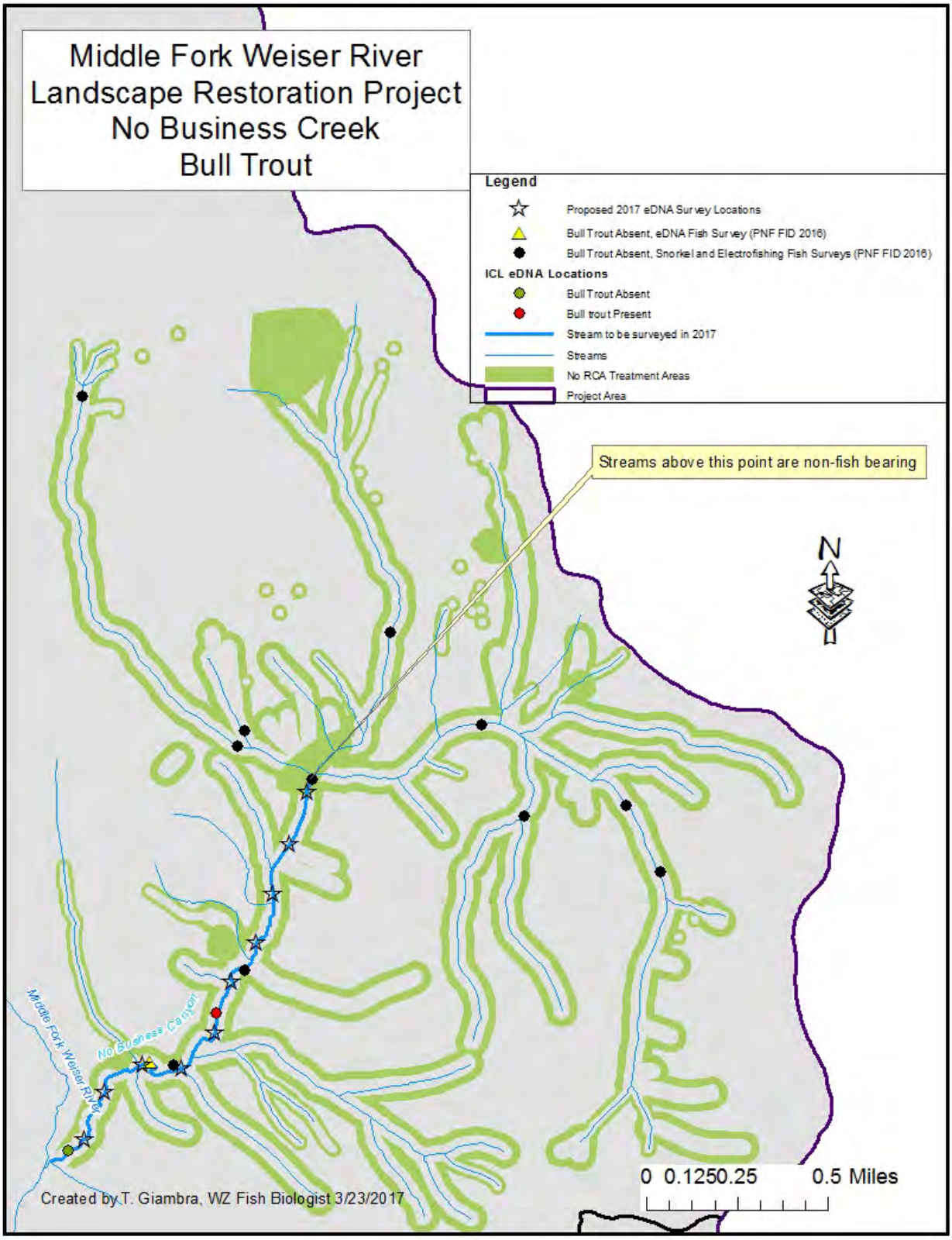

Figure Errata-1. No Business Creek Map

Effects of Removing RCA Treatment:

Fisheries – Removing 475 acres of RCA treatment will reduce the risk of negatively affecting bull trout to a negligible level. Removal of RCA treatment in the RCAs with listed fish present is consistent with previous projects, most recently the Mill Creek-Council Mountain and Lost Creek-Boulder Creek Landscape Restoration Projects.

References

Jane, S. F., T. M Wilcox, K. S. McKelvey, M.K. Young, M.K. Schwartz, W.H. Lowe, B.H. Letchers and A.R. Whiteley. 2015. Distance, flow and PCR inhibition: eDNA dynamics in two headwater streams. Molecular Ecology Resources (2015) 15, 216-227.

Item 2 – Northern Goshawk Post Fledging Areas (PFA) Update

The Post Fledging Areas (PFAs) identified for northern goshawk have been updated for the *Selected Alternative* in this Record of Decision. The FEIS identified nine PFAs in the Project area as shown on Figure 3.4-10 of the FEIS and Figure Errata-2 below. The close proximity of two of the PFAs (Warm Middle and Middle Fork Weiser River) and private land ownership occurring across one (Middle Fork Weiser River) warranted revising these two PFAs into one. The resulting PFA was named Cabin Creek in order to not be confused with the two previously identified PFAs. All eight of the resulting PFAs were updated so the boundaries would consist of easily identifiable features on the landscape (roads, streams, and ridges) to aide in unit layout during implementation (See Figure Errata-3). There were some changes to the three alternate nest stands and the three replacement nest stands in each PFA. As a result vegetation treatments may have shifted from commercial to noncommercial treatment in these identified nest stands. A summary of the resulting vegetation treatments for the *Selected Alternative* related to these PFA updates can be found in each resource Specialist Report in the project record. Any stands within the PFAs that were in PVGs 7 through 11 were left as No Treatment in order to not change effects to modeled lynx habitat. Stands within RCAs were also left as No Treatment for the PFA updates.

Figure Erata-2

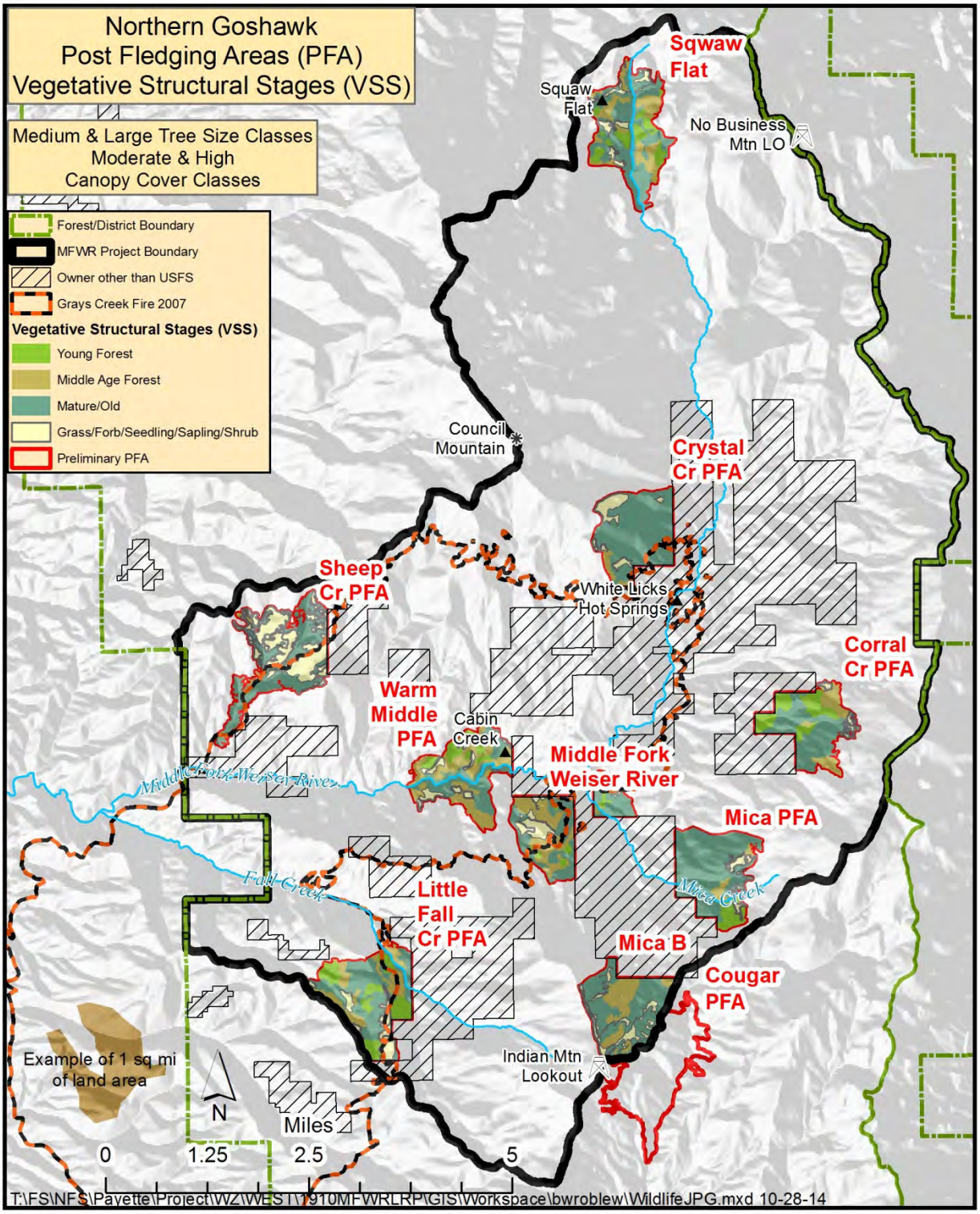
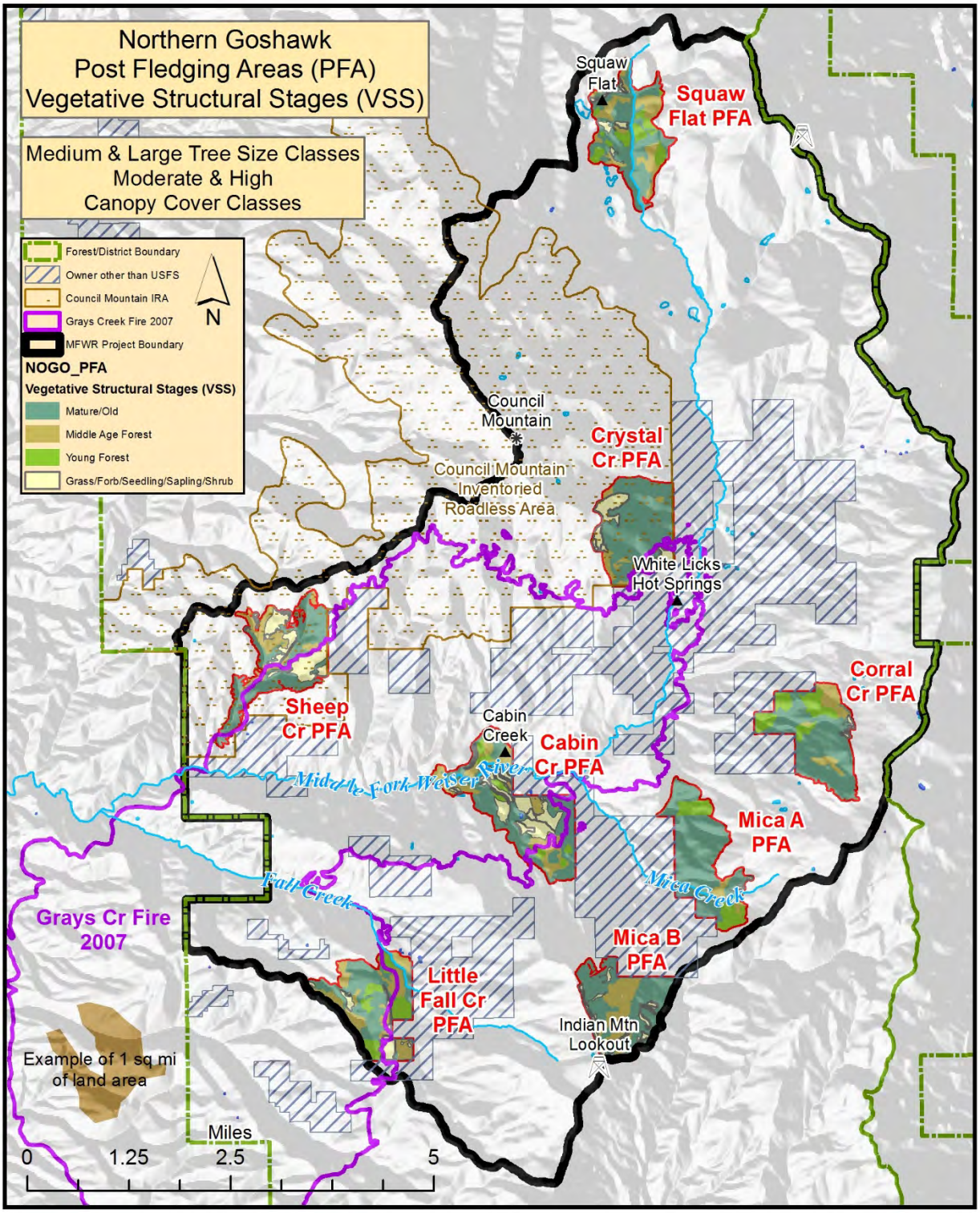
Figure Erata-3