

**Decision Notice  
and Finding of No Significant Impact**

**NORTH FORK MILL CREEK REVISED**

USDA Forest Service  
Hood River and Barlow Ranger Districts  
Mt. Hood National Forest  
Hood River and Wasco Counties, Oregon  
T1S, R11E, Sections 4-9; Willamette Meridian

**DECISION AND REASONS FOR DECISION**

The North Fork Mill Creek Revised Environmental Assessment (EA) contains an in-depth discussion of the changed condition, purpose and need for action, proposed action, project design criteria/mitigation measures, alternatives considered, environmental consequences and benefits of the alternatives as well as appendices which include best management practices for water quality protection and response to comments received. This project was undertaken in response to the Government Flats Complex Fire which occurred in August and September 2013.

**Changed Condition (EA, Sections 1.2 and 1.4)**

The Government Flats Complex Fire started from lightning strikes on August 16, 2013 on Oregon Department of Forestry lands. On August 21, the fire burned onto National Forest System (NFS) lands. Approximately 2,200 acres burned on the NFS lands and the total fire covered 11,354 acres on a variety of land ownerships. The fire occurred in an area with a complex mix of land allocations from the Mt. Hood Land and Resource Management Plan, Northwest Forest Plan, Tier 1 Watershed and Northern spotted owl Critical Habitat. The fire burned two stewardship contracts that were sold (Roan and Eques) as well as several unsold and planned units. All of the stewardship units were analyzed as part of the North Fork Mill Creek Restoration Opportunities Environmental Assessment (2008).

The Decision Notice and Finding of No Significant Impact (DN/FONSI) for North Fork Mill Creek Restoration Opportunities (signed December 19, 2008) authorized fuels reduction activities on 2,720 acres. Fuels reduction activities included 1,896 acres of commercial thinning to open dense stands and reduce fuel ladders, 153 acres of non-commercial treatments, 61 acres of aspen cottonwood enhancement, and 610 acres of underburning. The overarching objective of the treatments in the North Fork Mill Creek planning area was to reduce fuels and restore stands to their historical species composition while also providing for wildlife habitat needs. The prescriptions were designed to move treated areas toward the appropriate condition class based on the fire regime classification and to address fuels reduction needs in the treated areas.

To implement this decision, the project area was broken into six stewardship sales (Appy, Buckskin, Clyde, Roan, Eques, and Lokai Stewardship Sales). Of the six stewardship sales, three sales have been fully implemented (Appy, Buckskin and Clyde Stewardship Sales) and two other sales are partially completed (Roan and Eques Stewardship Sales). The last sale (Lokai Stewardship Sale) was awarded in fiscal year 2014. The Government Flats Complex Fire burned 89 percent of Roan and 54 percent of Eques. As time progresses, fire-killed trees lose economic value due to staining, insects, and checking (cracks in the wood that occur as the burned wood dries). By early summer to late fall of 2014 up to 60 percent of the economic value of these trees could be lost. Both of these stewardship sales were determined to have catastrophic damage as defined by the stewardship contract.

All treatment and activities analyzed under the original Proposed Action that were affected by the fire were considered in the changed condition analysis. The changed condition analysis is based on the Adaptive Management Model from Forest Service Handbook 1909.12, Chapter 20 to address the question on what changed condition analysis is required and what changes are needed to the original Proposed Action. These treatments include: restoration thinning, sapling thinning, cottonwood aspen enhancements, underburning, and road maintenance. In addition to changes in the treatments, any changes in law, regulation or policy within the analysis area (fire perimeter) will be applied and incorporated into a revised Proposed Action, as necessary. Some of these changes include: compliance with the 2001 Survey and Manage Record of Decision; updated critical habitat for northern spotted owls; updated critical habitat for steelhead; updated sensitive species list; and updated analysis on management indicator species. The overall purposes of this project are to meet the existing contractual and economic obligations and to improve safety on National Forest System roads within the burned area.

### **Purpose and Need for Action (EA, Section 1.3)**

The overall purposes of this project are to meet the existing contractual and economic obligations<sup>1</sup> within the existing Roan and Eques stewardship sales, to conduct a changed condition analysis to determine if changes to the original decision are required, and to improve safety on National Forest System roads within the burned area of the Government Flats Complex Fire. In order to meet these two primary purposes, the underlying needs of the North Fork Mill Creek Revised project are to:

- Modify the existing stewardship contracts, including salvaging dead and dying trees<sup>2</sup>;
- Improve the health and vigor of forested stands, including within Riparian Reserves;

---

<sup>1</sup> The economic obligations are based on the terms of the Integrated Resource Timber Contract (IRTC) stewardship contracts, which are part of the project record. The economics are entirely based on the final economic value of the timber, which will be determined during the reappraisal, rate redetermination and contract modification phases following this decision. See the Rationale for Decision section below for more information on the next steps.

<sup>2</sup> A dying tree is any tree that would die as a result of Government Flats Complex Fire. The Scott's Species Specific Guidelines (Scott, Schmitt and Spiegel 2002) would be used to assess individually dying trees. These guidelines are available in the project record located at the Hood River Ranger District. See Section 2.2.1 for more information.

- Reforest the desired tree species (where natural, on-site, seed sources are lacking) to aid in the accelerated development of forest conditions consistent with management plan objectives; and,
- Improve public, administrative and operational safety along Forest Service roads.

The contractual obligations require the Forest Service to assess the changed conditions, including the value and condition of the timber that has been affected and whether damaged, undesignated timber in the contract area can and should be salvaged together with the timber designated by the existing stewardship contracts. The damaged, undesignated timber is located within the contract area, but is not currently included in the existing stewardship contracts. The resulting contract modification includes: any changes to the prescriptions; any undesignated timber that can be salvaged and should be cut concurrently; eliminated areas that should not be cut or have lost their value; and, rate re-determination for all of the volume. The changes to the Proposed Action and resulting prescriptions are based on the Forest Service requirements to meet law, regulation and policy. Overall, the Forest Service has the obligation (if possible) to make the timber purchaser whole in the existing contracts based on the economic value of the timber.

The geographic scope of this project is the North Fork Mill Creek Restoration Opportunity (2008) planning area that overlaps with the Government Flat Complex fire perimeter.

## Decision

Based upon my review of the analysis and alternatives, I have decided to implement Alternative 2-Revised Proposed Action as described in the EA, Section 2.2. Appendix 1 of this Decision Notice contains a map of the selected alternative as well as unit-specific information for all vegetation treatments. All project design criteria/mitigation measures (PDC) that apply to this decision are included in Appendix 2 of this Decision Notice. The PDC are intended to avoid, minimize, rectify, reduce, eliminate and/or compensate for project impacts. The PDC are an integral and required component part of this project.

The Revised Proposed Action includes treating 1,009 acres within the Mill Creek watershed. This represents approximately 50 percent of the National Forest System (NFS) lands burned by the Government Flats Complex Fire in August and September 2013. The Proposed Action includes restoration thinning, hazard tree removal, and reforestation treatments. In addition to these treatments, the Proposed Action includes less than one mile of temporary road construction as a connected action. The Proposed Action is summarized in Table 1.

**Table 1:** Proposed Action Treatment Acres

<b>Proposed Treatment</b>	<b>Acres</b>
Restoration Thin (Unburned to Low Severity)	107
Restoration Thin (Moderate to High Severity)	146
Hazard Tree	134
Reforestation	622
<b>Total Acres</b>	<b>1009</b>

The North Fork Mill Creek Revised EA that describes the Revised Proposed Action in detail is

incorporated by reference and summarized below.

### **Restoration Thinning (EA, Section 2.2.1, 2.2.4 and 2.2.5)**

Restoration thinning treatments will harvest timber from 253 acres within the Government Flats Complex Fire perimeter. These units are all under existing stewardship contacts (Roan and Eques), and the Forest Service has a contractual obligation to analyze continued operations on these lands in order to provide the necessary context for contract modifications. The acres of treatment were reduced from the existing contractual acres based on the changed condition analysis in EA, Section 1.4. Approximately 64 acres were dropped to meet the standards and guidelines in the Forest Plan and Northwest Forest Plan.

#### ***Restoration Thinning (Moderate to High Severity)***

Fire-killed and dying trees will be harvested and removed from areas of high to moderate severity burn (146 acres). Most mortality from fire typically occurs over several years, as a result of first order fire effects (e.g., crown consumption, cambium kill, and/or root kill) (Wagener 1961, Ryan 2005, and Hood et al. 2010). A dying tree is any tree that will die as a result of Government Flats Complex Fire. Significant levels of mortality can occur as long as four years after the fire, as a result of second order fire effects such as insect infestations (Rasmussen et al. 1996), root death, or cambium death on the bole (Schmitt and Phillip 2005). Due to these time lags, the Scott's Species Specific Guidelines (Scott, Schmitt and Spiegel 2002) will be used to assess individually dying trees. These guidelines are available in the project record located at the Hood River Ranger District.

Snags will be retained to meet habitat requirements for the Northern spotted owl and snag and down log associated species, as much as possible. If additional trees are needed for soil stability or soil productivity, these trees will be retained and limbed as needed. A minimum of 10 snags per acre will be retained. No tree cutting except for felling hazard trees will occur within Riparian Reserves in moderate to high severity burn areas based on the Northwest Forest Plan standards and guidelines that prohibit salvage logging in Riparian Reserves (page C-32). Any hazard trees cut in the Riparian Reserves will be left on-site.

#### ***Restoration Thinning (Low to No Severity)***

Restoration thinning will also occur on the unburned to low severity burns with minor changes to the prescriptions (107 acres). These changes will focus on the gaps; in large part, the gaps will no longer be needed due to the fire activity within the units. All thinning activities on the unburned and low severity burn areas will apply variable density thinning (VDT), which allows flexible local density levels to achieve overall treatment objectives.

VDT was part of the original Proposed Action and will be carried forward in the unburned and low severity burn units. This allows emphasis to be placed on leaving vigorous trees of all sizes without concern for spacing. Leave tree spacing associated with variable density thinning will vary within and between units. Tree density will be measured by basal area, canopy closure, trees per acre or relative density depending on the circumstances for each unit. Where the objective is to delay the time at which the stand reaches the stem exclusion stage, a heavy variable density thinning will be prescribed (wide leave tree spacing). In other areas, the objective will be to have

stands reach the stem exclusion stage sooner and they will have moderate or light variable density thinning. Leave trees will include minor species and will include trees with the elements of wood decay.

The original riparian prescriptions (EA, Section 2.2.5) will be maintained wherever possible within the unburned to low severity burn areas. The original prescription for treatments within Riparian Reserves is based on initial analysis of aquatic and riparian areas and dialogue between interdisciplinary team members based on field information. Any thinning prescription within the Riparian Reserve shall meet Northwest Forest Plan standard and guideline TM-1C: “Apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives” (NWFP ROD page C-32). In other words, prescriptions within the Riparian Reserves are designed to protect and enhance riparian and aquatic values.

### ***All Restoration Thinning***

In the moderate to high severity restoration thinning units within 200-feet of roads and in the unburned and low severity restoration thinning units, the target fuel loading remaining on-the-ground is between 7 and 15 tons per acre in order to reduce the risk of potential wildfires. In the moderate to high severity restoration thinning units 200 feet beyond roads, the target fuel loading remaining on-the-ground is between 10 to 20 tons per acre in order to maintain soil stability while reducing the risk of potential wildfires. The units of highest concern would be prioritized during implementation based on current on-the-ground soil conditions and weather conditions. Restoration thinning units in all burn severities may be made available for firewood and/or restoration log removal, if the harvest operations are not able to be conducted while the product is viable. Vegetation treatment will utilize already disturbed areas as much as possible, including the use of available roads, skid trails existing from past activities and dozer line from the fire suppression activities.

Less than one mile of temporary roads will be constructed for removal of vegetation and completion of proposed activities in some stands. Two temporary roads are already located on-the-ground; approximately 0.2 miles of temporary road to access Unit 47 and then 0.1 miles of temporary road to access Unit 54. These roads were constructed to complete thinning operations and were not rehabilitated before the timber purchaser was evacuated for fire activity. All temporary roads, including those already constructed on-the-ground, will be rehabilitated as part of this project.

Lastly, the associated fuels reduction activities and riparian prescriptions will be implemented as described in the EA, Sections 2.2.4. Natural fuels (organic litter, brush, and trees) will be treated in the Proposed Action; treatment methods will include handpiling, pile burning and mastication. The treatments will be used over a large area to reduce the fuel loadings and modify the fuel profiles of the unit. These treatments are a subset of the original fuels activities that will be applicable to the restoration thinning units under the changed condition.

### **Hazard Tree Treatments (EA, Sections 2.2.2)**

Hazard tree treatment will treat 134 acres. These treatments will remove any tree that is

classified as a hazard tree and that is predicted to strike or damage the road up to 200-feet from either side of the center line of the road. All hazard (danger) tree evaluation and identification must follow the “Field Guide for Danger Tree Identification and Response” (Toupin et al. 2008). Based on field reviews, it is estimated that approximately 40 percent of the trees will need to be treated to address safety concerns; this is approximately 82 trees per acre.

Any slash exceeding Forest Plan standards and guidelines (FW-032 & FW-033) will be machine and/or hand-piled to reduce the resulting fuel loading. If additional trees are needed for soil stability or soil productivity, these also will be felled and left on site. Approximately 125 hazard trees have already been felled along Forest Service Road 1711-630 as part of the Burned Area Emergency Response (BAER) work. These trees will be removed, if they exceed Forest Plan standards and guidelines. On lands within Riparian Reserves (Units 87, 106A, 107A, and 108A), the hazard trees will be felled and left on-the-ground in order to comply with the Northwest Forest Plan. Implementation of these treatment units may occur outside the normal operating season from April 2nd to November 30th in order to facilitate safe travel on the road system as quickly as possible.

### **Reforestation (EA, Sections 2.2.3)**

Approximately 622 acres will be planted to reforest moderate to high severity burn areas in naturally forested areas and not in grass or meadow plant communities. Hazard trees within the stand will be hand-felled in order to facilitate safe tree planting operations, according to all State of Oregon and Federal (OSHA) safety standards. These trees will be left on-the-ground and used as contour trees whenever possible. Also, these trees will be used to provide micro-siting for planted tree seedlings as well. These areas will be reforested as needed in order to establish slow growing, shade intolerant, rot resistant species, such as ponderosa pine, western white pine and western larch. Similarly, all other restoration thinning and hazard tree units (approximately 280 acres) in the high to moderate burn severity areas will be reforested as needed. Any slash along the roads within these units that exceeds Forest Plan standards and guidelines and that are not needed for soil stability or soil productivity will be piled to reduce the resulting fuel loading prior to reforestation. These units were all originally analyzed under the North Fork Mill Creek Restoration Opportunities EA, but they have not met the desired future condition given the severity of the burn and anticipated natural regeneration.

### **Forest Plan Exceptions (EA, Sections 2.9.1)**

There are **eight Forest Plan standards** that will not be met in order to meet the Purpose and Need for Action as described above. Exceptions to the Forest Plan standards are allowed under the Forest Plan, if they are identified during the interdisciplinary process. The exceptions were identified during the interdisciplinary planning analysis and the IDT process concluded that these exceptions were within the Purpose and Need for Action. Forest Plan page 4-45 states that for “should” standards “action is required; however, case-by-case exceptions are acceptable if identified during interdisciplinary project planning, environmental analyses. Exceptions are to be documented in environmental analysis (National Environmental Policy Act 1969) public documents.” Also, the exceptions were shared with the public during the scoping and notice and comment periods. All other standards and guidelines are expected to be met with this project.

I approve the following exceptions to the Forest Plan and find that they have been fully analyzed in Chapter 3 of the EA. The following documents the rationale for each exception.

- **Detrimental Soils Conditions (FW-022 & FW-023):** The combined cumulated detrimental impacts, occurring from both past and planned activities of detrimental soil compaction, puddling, displacement, erosion or severely burned soils should not exceed 15 percent of the activity area. Landings, non-transportation system roads, and dispersed recreation sites should be included within the 15 percent.

**Effective Ground Cover (FW-025):** In the first year following surface disturbing activities, the percent effective ground cover by soil erosion hazard class should achieve at least the following levels:

<b>Soil Erosion Hazard Class</b>	<b>Effective Ground Cover</b>
Low to Moderate	60%
Severe	75%
Very Severe	85%

Effective groundcover and organic matter standards are not being met across all acres under the current post-fire condition. As such, a Forest Plan exception will be needed for Forest Plan standards FW-022, FW-023 and FW-025. However, the trend over the next few years is to meet these standards as dead material comes down and the ground recovers its vegetative cover. See EA, Section 3.3 for more details.

- **Organic Matter (FW-033):** At least 15 tons per acre of dead or down woody material in east side vegetation communities should be maintained and evenly distributed across managed sites.

FW-033 is currently not being met across all acres under the current post-fire condition, especially in the moderate to high severity burned areas. The trend, however, over the next few years is to meet this standard as dead material comes down and the ground recovers its vegetative cover. Most acres will likely meet this standard in less than four years.

The original analysis included a Forest Plan exception for this standard as well. The exception will still apply to the restoration thinning treatments in unburned to low severity burned areas. Since the overarching goal of the hazardous fuel reduction project is to reduce organic matter available to burn, it is a trade-off to meet the purpose and need. Fine organic matter levels should trend upward as the forest floor in higher fire frequency areas increase in shrubs, forbs, and grasses. Also, it is likely localized acreage will be lower than Forest Plan standards for organic matter, which is an intention of the Proposed Action for a hazardous fuel reduction project. When this occurs, it is not expected to be a substantial impact to nutrient cycling because these are not clearcuts followed by intense burning and extreme loss of current and future organic matter. Many of the soils impacted will retain substantial organic matter reserves in the mineral topsoil due to the way in which they have developed.

See EA, Section 3.3 and Chapter 3 – Soil Productivity in the original North Fork Mill Creek Restoration Opportunities EA for more details.

- Silvicultural Systems (FW-333): Uneven-age management should not be applied on slopes where cable logging systems will be necessary (30+% slopes).

Silvicultural Systems (FW-337). Uneven-aged management should not be applied where stands are moderately to heavily infected with dwarf mistletoe.

The original analysis included a Forest Plan exception for these standards (FW-333 and FW-337) as well. The exception will still apply to the restoration thinning treatments in unburned to low severity burned areas. Silvicultural systems refer to whether even-aged or uneven-aged management should be applied. Even-aged systems are regeneration harvests, including clearcutting, seed tree, and shelterwood cuts. The Forest Plan recommends an even-aged system on slopes over 30 percent because the residual trees in an uneven aged harvest system are often damaged with cable logging systems. Even-aged management is also the preferred approach when treating stands with dwarf mistletoe because of the spread of the parasitic plants to healthy trees under the canopy of infected trees. These Standards (FW-333 and FW-337) are not being met because the silvicultural prescriptions use uneven-aged management to fulfill resource objectives other than timber production (Forest Plan, Four-88).

See EA, Section 3.1 and Chapter 3 – Vegetation Resources in the original North Fork Mill Creek Restoration Opportunities EA for more details.

- Research Natural Area (A3-023, A3-024): Hazard trees may be cut or knocked down, but should not be removed from the site.

A Forest Plan exception is proposed for A3-024 in order to remove the hazard trees from the RNA and not increase the fuel loading. The only treatments proposed on the RNA are hazard tree abatement along the roadside. The trees will be removed, if the slash exceeds Forest Plan standards and guidelines for fuel loading. The fuels will be machine and/or hand-piled to reduce the resulting fuel loading in order to meet the purpose and need for this project. See EA, Section 3.10 for more details.

- Deer and Elk Winter Range (B10-014): Forest canopy closure should reach at least 70 percent canopy closure within 10 years of the last commercial thinning activity.

Deer and Elk Winter Range (B10-21 & B10-22): Optimal cover and thermal cover habitat components for deer and elk (measured at the area analysis level, i.e., approximately 5000 acres, or at the Management Area level) should encompass at least 50 percent of the area. Optimal cover should be at least 25 percent.

Forest Plan standards B10-014, B10-21 and B10-22 are not being met across all acres under the current post-fire condition. There are approximately 1,885 acres of B10 lands in project area. A total of 53.5 percent of these lands experienced a moderate to high severity burn in the Government Flats Complex Fire. This habitat within this burned area



is no longer providing optimal and thermal cover. Alternative 2 will further reduce the optimal and thermal cover within the project areas. The habitat will become forage habitat for the deer and elk. Most of the lost thermal cover characteristics in the stands should be regained in the next 40 to 50 years. See EA, Section 3.2 for more details.

### **Best Management Practices (EA, Section 2.9.3)**

Best Management Practices (BMPs) are defined as “methods, measures or practices selected by an agency to meet its nonpoint source control needs.” Appendix H of the Forest Plan provides management direction on the BMP implementation process. Further, according to the Northwest Forest Plan, BMPs will be incorporated into the implementation of the project. BMPs are drawn from General Water Quality Best Management Practices, Pacific Northwest Region (November 1988); Draft Environmental Protection Agency Region 10 Source Water Protection Best Management Practices for USFS, BLM (April 2005); Mt. Hood National Forest Standards and Guidelines, Northwest Forest Plan Standards and Guidelines and The National Best Management Practices for Water Quality Management on National Forest System Lands - Volume 1: National Core BMP Technical Guide (April 2012) and professional judgment.

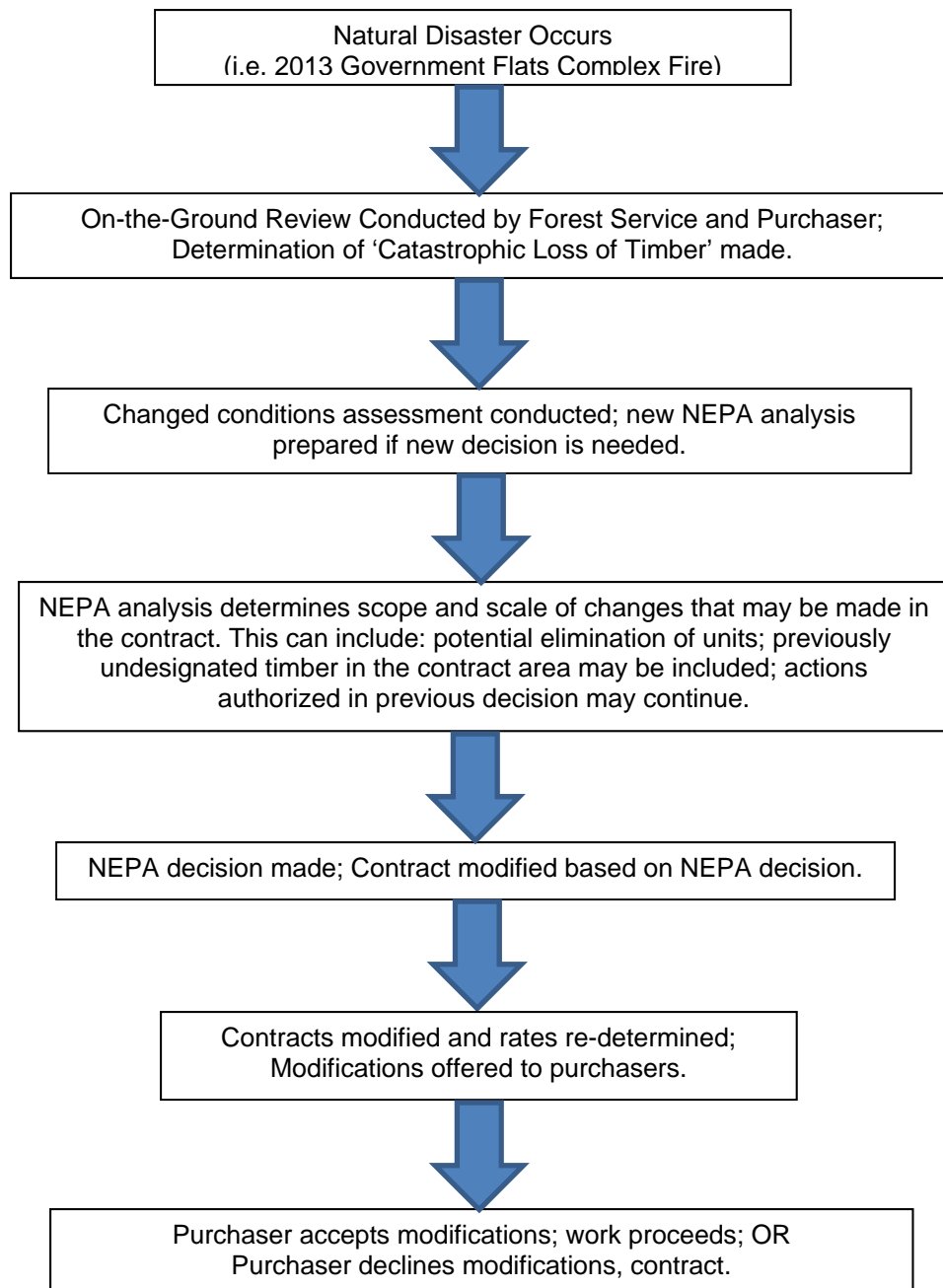
BMPs have been adjusted and refined to fit local conditions and then incorporated in the project design criteria/mitigation measures as described in EA, Section 2.9.3 as well as the standard contract language for implementing these projects. Appendix 1 of the EA details the site-specific Best Management Practices for Water Quality for this project. The appendix includes all the required components of the site-specific BMPs as specified in Appendix H of the Forest Plan, including BMP title, objective, explanation, ability to implement, effectiveness, and monitoring. In addition, the site-specific BMP table provides a cross-walk with the PDC and planning process. These BMPs effectiveness is discussed in EA, Chapter 3 (see EA, Section 3.5 and Section 3.6).

I find that the refined BMPs selected for this project can be implemented and effective based on past experience, pertinent research described in Chapter 3 of the EA, and monitoring on the Mt. Hood National Forest. Also, I find that the information contained in Appendix 1 of the EA fully complies with the management direction contained in Appendix H of the Forest Plan.

### **Rationale for Decision**

I have selected Alternative 2-Revised Proposed Action because it fully meets our existing contractual and economic obligations for the existing Roan and Eques stewardship sales. This alternative will enable the Timber Contracting Officer and timber purchasers to modify the existing stewardship contracts to include salvaging dead and dying trees, and to continue thinning in the low severity to unburned areas.

Contracts can only be modified or terminated for specific reasons, one of which is because of a natural disaster, such as the 2013 Government Flats Complex Fire. The contractual obligations require the Forest Service to assess the changed conditions, including the value and condition of the timber that has been affected and whether damaged undesignated timber in the contract area can and should be salvaged together with the designated timber. The resulting contract modification include: any changes to prescriptions; any undesignated timber that can be salvaged and should be cut concurrently; eliminated areas that should not be cut or have lost their value; and, rate re-determination for the volume. The following flow chart helps explain the method used to determine if or how a contract should be modified or terminated, after such an event:



Overall, the Forest Service has the obligation (if possible) to make the timber purchaser whole in the existing contracts based on the economic value of the timber. The specific provisions for the Integrated Resource Timber Contract (IRTC) that formed the foundation for the overall purpose of this project are described below. I believe honoring these provisions through this project is of the utmost importance; and thus, these serve as the foundation for my decision.

The IRTC states on page 1 that the “Forest Service agrees to sell and permit Contractor to cut and remove Included Timber and Contractor Agrees to purchase, cut and remove Included Timber and complete required stewardship projects.” The remainder of the contract is the terms and conditions to meet this statement. The following three provisions serve as the foundation for the purpose and need for action for this EA.

- Provision C.1.3.3 of the IRTC covers Damage by Catastrophe. Catastrophic damage as used in an IRTC "is major change or damage to Included Timber on Contract Area, to Contract Area, to access to Contract Area, or a combination thereof: (a) Caused by forces, or a combination of forces, beyond control of Contractor, occurring within a 12-month period, including, but not limited to, wind, flood, earthquake, landslide, fire, forest pest epidemic, or other major natural phenomenon and (b) Affecting the value of any trees or products meeting Utilization Standards, within Contract Area and estimated to total either: (i) More than half of the estimated timber volume stated in A.2 or (ii) More than two hundred thousand cubic feet (2,000 CCF) or equivalent."
- Provision I.3.1 of the IRTC covers Changed Conditions. Changed conditions under an IRTC are defined as: "When it is agreed that the completion of certain work or other requirements hereunder would no longer serve the purpose intended because of substantial change in the physical conditions of Contract Area or Included Timber since the date of this contract, the requirements shall be waived in writing. The estimated cost of such waived work or other requirement shall be charged to Integrated Resource Account." This provision is used to cover changes in law, regulation or policy (e.g., changing of a species list under the Endangered Species Act), rather than a catastrophic act which falls under provision C.1.3.3.
- Provision I.3.2. requires the Forest Service, in consultation with the Contractor, to review “Any areas of catastrophe-affected live and dead timber meeting Utilization Standards and having undesignated timber so situated that it should be logged with the designated timber.” An environmental analysis is needed to determine the adjustments, if any, that are required under the IRTC.

The next step in the process is to conduct a rate redetermination based on the revised EA. This allows our Timber Contracting Officer to propose modifications to the timber purchasers. The contract includes provision “D.3.2. Rate Redetermination after Catastrophic Damage” which states that “In event of Catastrophic Damage and adjustment, if any, of Included Timber, Contracting Officer shall make an appraisal to determine for each species the catastrophe caused difference between the appraised unit value of Included Timber remaining immediately prior to the catastrophe and the appraised unit value of existing and potential Included Timber immediately after the catastrophe. Included Timber is any that would not be eliminated under

I.3.2. Potential Included Timber is any that would be added under I.3.2.” After completing the rate redetermination, we would propose modification of the existing Roan and Eques stewardship contracts to the timber purchasers. This is provided for in the contract provision “I.3.2. Modification for Catastrophe.” The final step in the process is for the timber purchasers to either accept or reject the proposed modifications under Provision I.3.2, which allows the Forest Service and timber purchasers to modify the contract following a catastrophe. Contract provision “I.2.2 Termination for Catastrophe”, allows for termination of the contract by either the Contractor or Forest Service at this point. However, as explained previously, this provision only applies if the purchaser rejects the Modification for Catastrophe based on the rate redetermination that has yet to be completed. Under the contract, the Forest Service is required to assess the effects of the fire on the timber that is included in the area, which is occurring through the 2014 North Fork Mill Creek Revised EA project.

As described above in the contract provisions, we are required to meet all law, regulation and policy while meeting our contractual obligations. We considered two alternatives in detail in order to determine if there would be viability issues for the snag dependent species. Alternative 3-Snag Retention was designed to minimize the number of snags removed from the landscape in order to follow the recommendations resulting from the DecAID analysis as much as possible while addressing the safety hazards along the roads. The analysis (EA, Section 3.2) demonstrated the effects determination and viability for snag dependent species was the same for both action alternatives. The species considered were Northern spotted owls, white-headed woodpecker and Lewis’s woodpeckers. The required consultation for the Northern spotted owls and its critical habitat were completed with U.S. Fish and Wildlife Service (see EA, Chapter 4). As such, the selected alternative meets all law, regulation and policy for these wildlife species.

I recognize that this project is located in a wildlife habitat type that is historically low in snag habitat on the Forest. Also, I acknowledge that snag retention was identified as an issue for this project (see EA, Section 1.8) and used to develop Alternative 3 (described below). Further, I recognize that although we are meeting all law, regulation and policy that we are still impacting the number of snags in the watershed through the salvage logging and hazard tree removal. Overall, the Government Flats Complex Fire burned approximately 2,200 acres on the Forest with 660 as high severity, 638 as moderate severity, and 549 as low severity or unburned. The moderate and high severity burned areas represent the greatest potential for an increase in snag habitat. All of these acres burned within the DecAID wildlife habitat type of Eastside Mixed Conifer Cascades/Blue Mountains and vegetation condition of “large trees.” The selected alternative is salvaging on 146 acres and removing hazard trees from another 134 acres. As a result, the snag habitat on 21.6 percent of the high to moderate burn severity areas will be impacted by this project. Snags would not be removed from the other high to moderate burn severity areas within the fire perimeter (78.4 percent). As such, these areas would provide improved habitat to snag dependent species. I believe this alternative balances the ecological and economic concerns presented by the post-fire conditions in the planning area.

The selected alternative also improves public, administrative and operational safety along Forest Service roads (approximately 6 miles) by removing hazard trees. I believe this is a key component of this project in order to allow for the safe access and re-opening of the fire closure order in the Government Flats Complex Fire area. Lastly, the selected alternative reforests the

high to moderate burn severity areas with the desired tree species (where natural, on-site, seed sources are lacking) to aid in the development of forest conditions consistent with management plan objectives. While some seed sources still exist on the edges of moderate and high burn severity areas, natural regeneration potential is likely to be hindered by the aggressive establishment of brush and other non-tree vegetation. In areas where the seed source was lost, little to no natural regeneration is expected. Reforestation of ponderosa pine, western white pine, and western larch from local seed sources would move the forest towards a mixed conifer forest. I believe this is an important restoration component of this project.

In conclusion, I believe that the selected alternative completely fulfills our contractual obligations under the IRTC while meeting all law, regulations and policy. This alternative also fully meets the purpose and need for action. As such, I believe that the selected alternative reflects the integration of effective land management objectives at a very high standard and fully meets the purpose and need for this project.

## **Alternatives Considered and Reasons for Non Selection**

### **No Action Alternative (EA, Section 2.1)**

Under the No Action Alternative, the only action that would take place is the felling of hazard trees that pose an imminent threat to human safety or infrastructure. The goal for felling these hazard trees would be to re-open the road for administrative and public use. Based on tree evaluation surveys conducted on September 9, 2013 and May 22, 2014 by a qualified danger tree specialist, it is estimated that 12,500 snags would be removed under this alternative. These trees would be felled and would not be commercially sold. The trees may be removed for personal-use firewood or for use in restoration projects as permitted by existing NEPA decisions. As time passes, this number is anticipated to increase to the numbers described in the action alternatives as likely hazard trees become imminent hazard trees. Many of the hazard trees would not be removed, which may lead to an increased fuel loading along National Forest System Roads. Under the No Action Alternative, no thinning activities, associated fuel treatments, or reforestation activities would take place, and no temporary roads would be built.

I did not select this alternative because the Forest Service would not meet the existing contractual and economic obligations within the existing Roan and Eques stewardship sales and because this alternative would not meet the purpose and need for action. The stewardship contracts would not be modified to include salvaging dead and dying trees; the health and vigor of forested stands, including Riparian Reserves, would not be improved; and desired tree species (where natural, on-site, seed sources are lacking) to aid in the accelerated development of forest conditions consistent with management plan objectives would not be planted. Although Alternative 1 would meet the need to improve public, administrative and operational safety along Forest Service roads, the trees would not be removed which causes me concern about future hazardous fuel loading.

### **Alternative 3 – Snag Retention (EA, Section 2.3)**

Similar to the Revised Proposed Action, Alternative 3-Snag Retention includes treating 1,006

acres within the Mill Creek watershed. This alternative was designed to minimize the number of snags removed from the landscape in order to follow the recommendations resulting from the DecAID analysis as much as possible while addressing the safety hazards along the roads (see EA, Section 3.2). Snags would only be removed to meet health and safety objectives, including the Occupational Safety and Health Administration (OSHA) standards. As such, no thinning would take place on the moderate to high severity burn areas. These units are changed to hazard tree and reforestation treatments when compared to the selected alternative.

This action alternative includes restoration thinning (low to no severity), which meets the existing contractual and economic obligations on these acres. The sold timber on these units could be harvested using the existing contracts. No timber would be salvaged or harvested in the moderate to high severity restoration thin units which would remove approximately 146 acres from the existing stewardship contracts. I understand that approximately 33 of these acres would still be available to the timber purchaser as hazard tree removal, but the full contractual obligation would not be met on these acres. Further, I understand that this could be accomplished by modifying the existing contracts, as described above. By removing these acres, only approximately 34% of acres under existing stewardship contacts (Roan and Eques) within the fire perimeter would move forward under this alternative, compared to 80% under the Revised Proposed Action. This action alternative would treat hazard trees and restore the moderate to high severity burned areas similar to the selected alternative.

Although this alternative would meet many components of the purpose and need for action, I did not select it because the Forest Service would not meet the existing contractual and economic obligations within the existing Roan and Eques stewardship sales as well as the selected alternative meets these obligations. The first page of the Integrated Resource Timber Contract (IRTC) states: "Forest Service agrees to sell and permit Contractor to cut and remove Included Timber and Contractor Agrees to purchase, cut and remove Included Timber and complete required stewardship projects." The remainder of the contract is the terms and conditions to meet this statement. Since the Restoration Thin treatments in the high to moderate burn severity units meet all laws, regulations and policy, the timber resulting from these treatments are currently contractually the Contractors under the terms and conditions of the IRTC. I believe it is important to honor these contractual obligations whenever possible. This alternative removes 146 acres where we could meet contractual obligations along with law, regulation and policy. The analysis (EA, Section 3.2) demonstrated the effects determination and viability for snag dependent species on these acres was the same for both action alternatives. The species considered were Northern spotted owls, white-headed woodpecker and Lewis's woodpeckers. For these reasons, I did not select this Alternative 3-Snag Retention.

### **Cancel Roan and Eques Stewardship Sales (EA, Section 2.8)**

An alternative was considered to cancel the Roan and Eques stewardship sales due to the catastrophic damage resulting from the Government Flats Complex Fire. This alternative would not salvage any dead or dying trees nor would this alternative thin unburned or low severity burned areas within the stewardship sales. This alternative would exercise the contractual provisions in the IRTC to pay the timber purchasers for the timber currently under contract.

The original sales include 577 acres of treatments, including 92 acres that were treated prior to the fire. On the remaining acres that were not treated prior to the fire, salvage logging or thinning treatments could not be completed while meeting all law, regulation and policy on approximately 64 acres. After removing these acres, there are approximately 421 acres available to be treated (see Table 2), including approximately 170 acres outside the fire perimeter and 105 acres on low severity burn areas.

**Table 2:** Acres Available for Salvage and Thinning Treatments within Roan and Eques Stewardship Sales

Stewardship Sale	Acres Outside Fire Perimeter	Acres on Low Severity Burn Areas	Salvage Logging	Total Acres Available
Roan Stewardship	30 (19%)	50 (32%)	75 (48%)	155
Eques Stewardship	140 (53%)	55 (21%)	71 (27%)	266
<b>Total</b>	<b>170 (40%)</b>	<b>105 (25%)</b>	<b>146 (35%)</b>	<b>421</b>

This alternative could meet the overall purpose to meet the existing contractual and economic obligations within the existing Roan and Eques stewardship sales by using the contract provision to cancel the sale. Because this alternative would not meet the underlying needs to improve the health and vigor of forested stands, including within the Riparian Reserves, I did not select this alternative and it was not analyzed in detail. If the stewardship sales were cancelled, the purpose and need for action would not be met on 275 acres which represents 65% of the sale areas where treatment can be implemented while meeting all law, regulation and policy. These acres are located outside the fire perimeter and are on low severity or unburned areas.

This alternative was not analyzed in detail because it is similar to the No Action Alternative (see EA, Section 2.1). Under the No Action Alternative, the only action that would take place is the felling of hazard trees that pose an imminent threat to human safety or infrastructure. The No Action Alternative does not include any salvage or thinning treatments. As such, my rationale for not selecting the No Action Alternative is applicable to this alternative as well.

## Public Involvement (EA, Section 1.7)

North Fork Mill Creek Revised was listed in the Mt. Hood National Forest quarterly planning newsletter (Schedule of Proposed Action [SOPA]) beginning in February 2014. The project was listed on the Mt. Hood National Forest website beginning in January 2014 at: <http://www.fs.usda.gov/projects/mthood/landmanagement/projects>. No comments were received through this effort.

The original hazardous fuels reduction proposal for North Fork Mill Creek Restoration Opportunities (2008) was listed in the Mt. Hood National Forest quarterly planning newsletter (Schedule of Proposed Actions [SOPA]). No comments were received through that effort. In March 2008, a letter providing information and seeking public comment was mailed to 135 individuals and groups. This included federal and state agencies, the Confederated Tribes of Warm Springs, municipal offices, businesses, interest groups, landowners near the watershed and individuals. Also, a public meeting was held on March 26, 2008 at the Hood River Ranger Station at Mt. Hood/Parkdale, Oregon. Comments were received from representatives of Oregon

Wild, SDS Lumber, and three individuals. A summary of the public comments received during the scoping period are included in Appendix 2 of the 2008 Environmental Assessment.

The Mill Creek Collaborative Group was actively involved throughout the original planning process for North Fork Mill Creek Restoration Opportunities. This collaborative group was active from 2004 through 2010 on hazardous fuels reduction projects in the North and South Fork Mill Creek planning areas. Although collaboration was not specifically undertaken for this revised project, the collaborative group recommendations and efforts from the original project were used in the planning process. The collaborative group was informed of this project as described below.

A new scoping period is not required for a revised environmental analysis resulting from a changed condition. Forest Service Handbook (FSH) 1909.12, Chapter 20 describes the requirements for the Adaptive Planning Process. A second scoping period was not conducted, but an information letter was mailed to approximately 150 individuals and groups on February 6, 2014. The mailing list included all those interested in the original project as well as all members of the collaborative group. This included federal and state agencies, the Confederated Tribes of Warm Springs, municipal offices, businesses, interest groups, landowners near the watershed and individuals. One comment from an individual has been received to date from these efforts.

A legal notice announcing the availability of the North Fork Mill Creek Revised Preliminary Analysis for review and comment was published in *The Oregonian* (newspaper of record) on June 18, 2014. The 30-day comment period ended on July 18, 2014. Comments were received from 436 individuals and organizations within the comment period. An additional 29 comments were received from individuals after the comment period ended. The comments were received from individuals, Oregon Wild, Confederated Tribes of Warm Springs, Bark and Mt. Hood Study Group. Of the comments received, 458 comments were from emails received from individuals. Copies of these letters are in the North Fork Mill Creek Revised project record. During the comment period, a public open house was held on July 9, 2014 to present and answer questions about the Preliminary Assessment. Two individuals and a member of Bark attended the meeting. Substantive comments received during the comment period are summarized along with Forest Service responses in EA, Appendix 2. The issues raised through these public involvement efforts and how they were considered in the project are discussed in EA, Section 1.8.

A legal notice announcing the objection period for North Fork Mill Creek Revised EA was published in *The Oregonian* on September 5, 2014. Letters and emails were sent to all individuals and organizations that provided comments during the planning process (458 individuals and organizations). A corrected legal notice was published in *The Oregonian* on September 10, 2014. The correction was also sent to all individuals and organizations. The corrected legal notice started the 45-day objection filing period. One objection was received from Bark and Oregon Wild. A summary of the objection review period is provided later in this document.



## FINDING OF NO SIGNIFICANT IMPACT

Based on the site-specific environmental analysis documented in the EA and the comments received from the public, I have determined that this is not a major Federal action that will significantly affect the quality of the human environment; therefore, an Environmental Impact Statement is not needed. This determination is based on the design of the selected alternative, context of the project, and the intensity factors (40 CFR 1508.27).

### Context

Based on the documentation in the EA and project record, I find that the effects of the project are not significant as disclosed in Chapter 3 of the EA and will have a negligible effect at the District and Forest scale. The EA implements direction set forth in the Forest Plan, as amended. The Forest is comprised of about 1.1 million acres. The selected alternative authorizes about 387 acres of vegetation treatments, which includes 146 acres of salvage logging. All vegetation treatment represents approximately 0.04% of the Forest, and the salvage logging represents approximately 0.01% of the Forest. Also, the project includes 622 acres of reforestation on the Hood River District, which represents 0.06% on the Forest.

### Intensity

#### **1. Analysis of the beneficial and adverse impacts**

Adverse and beneficial impacts have been assessed and were not found to be significant. My finding of no significant environmental effects is not biased by the beneficial effects of the action. The analysis considered not only the direct and indirect effects of the projects, but also their contribution to cumulative effects. Past, present and foreseeable future actions have been included in the analysis. Adverse effects from the selected alternative have been minimized or eliminated through PDC (Appendix 2). For this project, there are no known long-term adverse effects or cumulative effects to resources such as wildlife, water quality, fisheries, recreation, or heritage resources. As such, I find that the selected alternative is not a significant federal action.

#### **2. The degree to which the Proposed Action affects public health and safety:**

I find that this project will provide a long-term beneficial effect to public health and safety by improving public, administrative and operational safety along Forest Service roads. Hazard trees will be treated along approximately six miles of National Forest Service Roads, allowing the fire closure in the area to be lifted. Also, the project contains PDC (Appendix 2) to protect public health and safety during project implementation, including the removal of danger trees in the restoration thinning and reforestation treatments. No other public health and safety issues were raised during scoping or notice and comment periods (EA, Appendix 2, Response to Comments).

### **3. The unique characteristics of the geographic area:**

No prime farmlands, parklands, wild and scenic rivers, wilderness, potential wilderness, inventoried roadless areas, unroaded areas or ecologically critical areas overlap within the treatment areas proposed (EA, Section 3.16). Historic and cultural resources have been protected by project design, and riparian areas including wetlands and streams have been buffered (see Appendix 2 for PDC). The primary Forest Plan land use allocations in the planning area are Deer and Elk Winter Range (B10) and Timber Emphasis (C10) with smaller amounts in Research Natural Areas (A3), Semi-Primitive Roaded Recreation (A6), Special Old Growth (A7) and Special Emphasis Watershed (B6). Additionally, there is one secondary land use allocation in the planning area – Pileated Woodpecker/Pine Marten Habitat Area (B5). The major Northwest Forest Plan allocation within the planning area is Matrix with smaller amounts in Riparian Reserves and Administratively Withdrawn. The planning area also includes the Mill Creek Tier 1 Key Watershed (EA, Section 1.3.2). None of the major characteristics of these land use allocations will be negatively impacted by this project.

### **4. The degree to which the effects on the quality of the human environment are likely to be highly controversial:**

The topic of post-disturbance logging is surrounded by public concern and controversy. The controversy focuses mainly on the ecological consequences (EA, Section 2.6). The premise of the arguments being that there are no ecological benefits to salvage logging (Hutto 2006, Noss et al. 2006). The importance of the loss of biological legacies, in particular large snags and large live trees, effects to wildlife species specifically associated with recently burned forests, effects to burned and exposed soils, and effects to riparian areas. There are also valid socio-economic reasons for conducting post-disturbance logging, such as economic recovery of potential lost value, providing economic activity for rural communities, and mitigating public safety hazards posed by dead and damaged trees along transportation corridors and in high use areas.

Of critical importance is the overall scale of the proposed activities within the burned area. Of the 2,261 acres within the fire perimeter on NFS lands, the proposed post-disturbance logging will occur on roughly 146 acres of restoration thinning units burned at a moderate to high severity and 134 acres of hazard tree abatement. Due to topography, locations of stream buffers, varying levels of tree mortality, and a range of operational constraints, it is estimated that at most about 12 percent, roughly 280 acres, will actually have post-disturbance logging occur. Note, also, that because public safety is the overriding priority in the roadside corridors, treatment prescriptions differ somewhat between roadsides and the areas outside them, and roadside hazard tree removal is proposed along open roads in areas that are otherwise excluded from salvage harvest. Only 6 percent (146 acres) will have post-disturbance logging outside the roadside corridor.

I believe that the activities proposed for the North Fork Mill Creek Revised project and analyzed in this Environmental Assessment were designed to balance both the ecological and economic concerns presented by the post-fire conditions in the planning area. Information

gained from post-salvage monitoring has the potential to contribute to future proposals for and decisions about post-disturbance management in similar areas guided by multiple-use land management objectives. I have also taken into account that opposition to salvage logging has been fully considered through documentation of the no action alternative.

**5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks:**

There were no highly uncertain, unique or unknown risks identified in the North Fork Mill Creek Revised EA. Activities approved in this decision and the effects analyses discussed in Chapter 3 of the EA are based on sound scientific research and previous experience implementing thinning projects under the Mt. Hood National Forest Land and Resource Management Plan over the past 15 years. None are unique or involve unknown risks, including the salvage logging.

**6. The degree to which the action may establish a precedent for future actions with significant effects:**

The action is not likely to establish a precedent for future actions with significant effects because this action is not unusual in and of itself, nor does it lead to any further actions that are unique. Similar projects have been conducted across the Pacific Northwest Region in similar ecosystems.

**7. Whether the action is related to others actions with individually insignificant, but cumulatively significant impacts:**

The analysis considered not only the direct and indirect effects of the Proposed Action (EA, Section 2.2) with PDC (EA, Section 2.4), but also its contribution to cumulative effects. Past, present and foreseeable future projects and recent wildfires have been included in the analysis (EA, Table 3-1). Each resource effects analysis contained in the EA discusses cumulative effects; none were found to be significant (EA, Section 3.1.3, Vegetation Resources; Section 3.2, Wildlife; Section 3.3.3, Soil Productivity; Section 3.4.3, Water Quality; Section 3.5.3, Fisheries and Aquatic Fauna; Section 3.7.3, Botany; Section 3.8.3, Invasive Plant Species; Section 3.9.3, Transportation Resources; Section 3.10.3, Fuels Management and Air Quality; Section 3.11.3, Recreation; Section 3.12.3, Visual Quality; and, Section 3.13.3, Cultural Resources).

**8. The degree to which the action may affect scientific, cultural, or historical resources:**

The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP) and will not cause loss or destruction of significant scientific, cultural, or historical resources due to the project PDC that will be implemented as part of this project (see Appendix 2). Under the Proposed Action, protective measures previously prescribed as part of the original North Fork Mill Creek project (2008) for heritage resources will be adequate to protect these sites from the modified project. No timber treatments are proposed near the North Section Line Trail. Slobber Drive, an historic road, is situated within areas proposed for timber treatments,

and the road will be used for timber hauling. The PDC included in this project are similar to those previously employed for hazard tree removal along the Cloud Cap Road and will result in no adverse effect to Slobber Drive. No protective measures are required or recommended for ineligible sites (EA, Section 3.13).

**9. The degree to which the action may adversely affect endangered or threatened species or habitat:**

The action complies with the Endangered Species Act (ESA) of 1973 for aquatic and wildlife species. The project area contains two threatened wildlife species (EA, Section 3.2.2) and one threatened aquatic species (EA, Section 3.5). No threatened, endangered or proposed botanical species are present in the project area (EA, Section 3.7).

The selected alternative will impact 70 acres of dispersal habitat and 15 acres of suitable habitat for Northern spotted owls. The impacts to dispersal habitat from the proposed treatments will affect the ability of owls to move through these treated stands since they will no longer be providing dispersal habitat. Suitable habitat will be removed in territories that are currently below the threshold levels, and foraging habitat will be reduced. The removal of post-fire habitat will reduce available foraging for Northern spotted owls on 280 acres from Restoration Thin and Hazard Tree treatments. As such, the selected alternative may affect, and is likely to adversely affect (LAA) Northern spotted owls and Northern spotted owl critical habitat. Although the rationale for the effects determination has changed, the original analysis from 2008 also included an effects determination of may affect and is likely to adversely affect spotted owls (EA, Sections 3.2.2.1 and 3.2.2.2). The U.S. Fish and Wildlife Service also assessed the potential for cumulative effects to owls and found that the potential for this project to contribute to cumulative effects to critical habitat was minor, given the project's scope and scale (15 acres of suitable habitat and 70 acres of dispersal habitat) in critical habitat. Specifically, the U.S. Fish and Wildlife Service stated that "these impacts are not expected to reduce the potential of critical habitat to support spotted owl territories (BO, pages 28-30). Furthermore, the U.S. Fish and Wildlife Service noted that while one territory will be adversely affected, its current condition is "very low, due to the lack of suitable habitat this is supporting the territory post-fire..." (BO, page 29). The analysis provided by U.S. Fish and Wildlife Service supports and clarifies why there are no measureable cumulative effects to Northern spotted owl (EA, page 3-22 to 3-24 and 3-29 to 3-30).

The effects to Northern spotted owls for this project were consulted on with the U.S. Fish and Wildlife Service through formal consultation on FY 2007-2008 activities within the Willamette province that have the potential to adversely affect spotted owls due to habitat modification and disturbance (FWS reference: 1-7-06-F-0179). The conclusion by the US Fish and Wildlife Service is that these projects are not likely to jeopardize the continued existence of the spotted owl or result in the destruction or adverse modification of spotted owl critical habitat. The full reference is: Biological Opinion for Effects to Northern Spotted Owls (*Strix occidentalis caurina*) from the Willamette Planning Province Fiscal Year 2007 – 2008 activities that have the potential to adversely affect, due to habitat modification and disturbance, on U.S. Department of the Interior; Bureau of Land Management, Eugene

District and Salem District, and the U.S. Department of Agriculture; Mt. Hood National Forest, Willamette National Forest and the Columbia River Gorge National Scenic Area (FWS reference: 1-7-06-F-0179).

The effects to spotted owls and critical habitat for this revised project were consulted on with the U.S. Fish and Wildlife Service through formal consultation North Fork Mill Creek Planning Area activities proposed by Mt. Hood National Forest's Hood River and Barlow Ranger Districts and their effects to northern spotted owls, and spotted owl critical habitat (FWS reference: 01EOFW00-2014-F-0253). U.S. Fish and Wildlife Service found that "the North Fork Mill Creek Planning Area activities at the anticipated levels would not jeopardize the continued existence of spotted owls, nor would it adversely modify spotted owl critical habitat." The biological opinion included two terms and conditions as well as a conservation recommendation. The terms and conditions state:

- 1) Monitor project implementation to ensure that actual levels of effects do not exceed the effects anticipated by this BO; and,
- 2) Complete a project implementation and monitoring form to show actual levels of effect at the end of each calendar year. This form shall be forwarded to the Service by the Mt. Hood National Forest to fulfill the monitoring report requirements.

Monitoring completes the regulatory requirements of the ESA by documenting the actual effects to the subject species.

In addition, the U.S. Fish and Wildlife Service stated that they believe that the following conservation recommendation will reduce the impact of the proposed action on nesting spotted owls within the action area: "Delay activities that may disturb spotted owls as late as possible into the nesting season." Lastly, the U.S. Fish and Wildlife Service requested that they be notified regarding implementation of the conservation recommendation. These are required components of this project that are incorporated into my decision. The receipt of the BO and the inclusion of the terms and conditions and conservation recommendations fully protect the Northern spotted owl and comply with the requirements of ESA.

For wolverines, activities from thinning of burned and unburned stands and hazard tree removal will not impact individuals through disturbance because there is a very low probability that a wolverine will be in the area. There will be **no effect** to wolverine from the selected alternative. Any wolverine in the watershed will be a dispersing individual and activities will not prevent them from moving across the landscape. The Mill Creek Watershed does not include denning habitat and therefore there will be no impacts to denning habitat under these alternatives. Restoration thinning and hazard tree treatments will not impact wolverine prey species (EA, Section 3.2.2.3).

The selected alternative could result in direct effects to fish individuals and could also result in small increases in fine sediment, particularly from log hauling in Riparian Reserves. Due to the potential for direct effects to fish and disturbance from slight sediment increases, the selected alternative **may affect, and are likely to adversely affect (LAA)** Middle Columbia River steelhead, but will have a long-term **beneficial effect (BE)** due to reforestation activities that will mitigate potential negative effects of the Government Flats Complex Fire and will improve habitat in North Fork Mill Creek over time. Designated or proposed critical habitat in North Fork Mill Creek will **not be adversely modified** (EA, Section 3.5). The

falling of hazard trees into North Fork Mill Creek is consistent with the large wood placement category of the Endangered Species Act – Section 7 Programmatic Consultation Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for Reinitiation of Aquatic Restoration Activities in the States of Oregon and Washington (ARBOs II) (NMFS Consultation Number: NWR-2013-9664) from both the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (CY2013 – indefinite end point). As such, no additional consultation is required (EA, Chapter 4).

#### **10. Whether the action threatens a violation of environmental laws or requirements:**

My decision will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA (Section 3.16). The action is consistent with the Forest Plan as described in the consistency section for each resource in the EA, Chapter 3 as well as described below. The selected alternative is consistent with the National Forest Management Act regulations for vegetative management. There will be no regulated timber harvest on lands classified as unsuitable for timber production (36 CFR 219.14) and vegetation manipulation is in compliance with 36 CFR 219.27(b). The project complies with Executive Order 12898 regarding environmental justice (EA, Section 3.15). No disproportionately high adverse human or environmental effects on minorities and/or low-income populations were identified during the analysis or public scoping process.

#### **Findings Required by Other Laws and Regulations**

The project was prepared consistent with the requirements of the **National Environmental Policy Act (NEPA)**, and other relevant Federal and State laws and regulations.

I find that the selected alternative is consistent with the **National Forest Management Act**, including the management direction found in the **Mt. Hood National Forest Land and Resource Management Plan**, as amended (see EA, Section 1.3.1). It is consistent with standards and guidelines specific to the relevant land allocations and it is consistent with the applicable Forest-wide standards and guidelines (see EA, Section 1.3.2). Each resource section in Chapter 3 discusses consistency with the Forest Plan and Northwest Forest Plan. Additionally, I find that the selected alternative is consistent with the major amendments to the Forest Plan as described below.

- I find that the selected alternative is consistent with the **Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines** (EA Section 3.2, Wildlife; Section 3.5, Fisheries and Aquatic Fauna; and Section 3.7, Botany), including all survey protocols. The Restoration Thinning on the low severity to unburned areas and the Hazard Tree Treatments of this project falls under exemption “a” (thinning projects in stands younger than 80 years old) listed in the October 11, 2006, modified injunction Northwest Ecosystem Alliance v. Rey, Case No. 04-844-MJP. As such, no surveys are required on these lands.

The selected alternative will impact 15 acres of habitat for Dalles Sideband, Crater Lake Tightcoil, Evening Fieldslug, Puget Oregonian, and Columbia Gorge Oregonian (EA, Section 3.2.5). As discussed in the original EA from 2008, this project will impact habitat for mollusks by reducing snags and down wood. All known micro-sites will be protected. In addition, the Northwest Forest Plan ROD recommends 120 linear feet of down logs per acre greater than 16 inches in diameter within the matrix management areas in eastern Oregon. Although this project will eliminate some habitat within the project area, a minimum of 120 linear feet of down woody material and 4 snags/acre will be retained and the populations of salamanders will continue to persist within the project area. All required survey protocols for these species have been followed.

Formal surveys for many Survey and Manage fungi are not practical or are not required (2001 Survey and Manage Record of Decision, Standard & Guideline-9) unless activities are planned in areas of old growth forest (forest stands over 180 years old) or near known sites. Fungal surveys were not conducted in the planning area. Informal surveys (incidental, or surveys for other projects) have been conducted for various fungi throughout the Mill Creek watershed, but no species were found (EA, Section 3.7).

As such, I find that the selected alternative is consistent with the 2001 Survey and Manage ROD, including all required survey protocols.

- I find that the selected alternative is consistent with the **Aquatic Conservation Strategy (ACS)**. This project will maintain or restore all nine ACS objectives (EA, Section 3.6) through the implementation of PDC (EA, Section 2.4) and Reforestation treatments. I have also considered the existing condition of Riparian Reserves, including the important physical and biological components of the fifth-field watersheds and the effects to riparian resources. No salvage logging will occur in Riparian Reserves. I find that the selected alternative is consistent with Riparian Reserve standards and guidelines, and will contribute to maintaining or restoring the fifth-field watersheds over the long-term (EA, Section 3.4). Finally, I considered the relevant information from the Mill Creek Watershed Analysis (2000). This project has adopted the concepts for Riparian Reserve delineation described in the watershed analysis.
- By considering the prevention of invasive plant introduction, establishment and spread of invasive plants (EA, Section 3.8), the planning process is consistent with the **Pacific Northwest Invasive Plant Program Preventing and Managing Invasive Plants Record of Decision issued in 2005** and the **Site-Specific Invasive Plant Treatments for Mt. Hood National Forest and Columbia Gorge Scenic Area in Oregon Record of Decision issued in 2008**. Project Design Criteria/Mitigation Measures are included to prevent the spread and establishment of invasive plants (see Appendix 2).

Further, I find that the selected alternative is consistent with the Forest Plan and Regional direction on management indicator species and sensitive species.

- I have considered the impacts to **management indicator species (MIS)** as disclosed in the EA (EA Section 3.2.6, Wildlife and Section 3.5, Fisheries and Aquatic Fauna).

Wildlife MIS within the project area include the northern spotted owl, mule deer and elk, pileated woodpecker, American marten, wild turkey and Western grey squirrel. Aquatic MIS within the project area include Middle Columbia River steelhead trout, and resident rainbow trout and cutthroat trout. I find that the selected alternative is consistent with the standards and guidelines pertaining to MIS, and that based on the limited effects to any MIS, the selected alternative does not contribute towards a negative trend in viability on the Forest.

- I have considered the impacts **Regional Forester's Sensitive Species** list for aquatic, wildlife and botanical species as disclosed in the EA (EA Section 3.2, Wildlife; Section 3.56, Fisheries and Aquatic Fauna; and Section 3.8, Botany). All resource areas used the Region 6 Regional Forester's 2011 Sensitive Species list for this analysis. The selected alternative will have no significant adverse effects to sensitive species. The project will not jeopardize the continued existence of any listed species nor will it cause a trend to federal listing or loss of viability for these species.

The sensitive wildlife species within the project area are the white-headed woodpecker, the Lewis's woodpecker, and the western bumblebee (EA, Section 3.2.4). Habitat loss is the primary threat to white-headed woodpecker. The removal of large ponderosa pine trees and snags contributes to declines in habitat. Hazard Tree and Restoration Thin treatments in the moderate to high severity burned areas will remove large ponderosa pine trees and snags. While snags within this habitat type are below historic levels at the watershed and at the Forest scale (see DecAID analysis), white-headed woodpeckers do not appear to rely on these high density patches and may rely more on the presence of large ponderosa pine. As such, this project **may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species (MIH)**.

Some of the threats to Lewis' woodpecker include the loss of breeding habitat and salvage logging. The removal of snags will reduce the number of potential nest sites for Lewis' woodpecker; however, do not appear to rely on these high density patches since this species is most commonly found in open woodlands and the most important breeding habitat is open canopies with large diameter dead or dying trees. Nesting habitat will be provided since high density patches of snags will remain in the hazard tree units and untreated burned areas which are adjacent to more open stands that will provide the necessary foraging habitat. As such, this project **may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species**.

The selected alternative may temporarily impact flowering plants during restoration thinning and associated fuels activities for western bumblebee. The total number of acres impacted will not exceed 107 acres since most of the activities are within heavily timbered units or within the moderate to high severity burned areas and do not currently provide foraging habitat or nest sites. It is expected that these shrubs will regenerate within a few years and that the bumblebees will have other nectar plants available within the project area. This impact represents less than one percent of the Forest Service owned



lands within the Mill Creek Watershed. As such, this project **may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.**

Barren Juga, Dalles Juga, and Caddisfly *Namamyia plutonis* are the aquatic sensitive species present in the project area (EA, Section 3.5). Due to the potential for direct effects to fish and disturbance from slight sediment increases, this project **may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or loss of viability to the population or species (MIIH)** for the Region 6 sensitive invertebrates. The projects will have **no impact (NI)** on the Purple-lipped Juga or the Scott's Apatanian caddisfly, Region 6 sensitive invertebrates, since they do not have habitat present in the project area.

Two sensitive botanical species were identified within the planning area: *Arabis sparsiflora* var. *atrorubens* (sickle-pod rockcress) and *Botrichium minganense* (Mingan moonwort), as well as 16 sensitive fungal species (EA, Section 3.8). The Government Flats Complex Fire did not impact the known sites for Mingan moonwort; and thus, there is **no effect** to this species. Under the selected alternative, hazard trees will be removed along the road accessing the habitat for sickle-pod rockcress. Immediate direct effects could be loss of some individual plants from mechanical trampling and direct impacts to habitat. PDC will include buffering known sites of sickle-pod rockcress to avoid damage. Mechanical activity within these areas may also increase the risk of invasive species spread, causing both direct and indirect effects to individuals and suitable habitat over time. As such, the effects determination for this species is **may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or loss of viability to the population or species.** For fungal species, surveys were completed and determined that there is low potential for species presence and habitat. As such, the effects determination for this species is **may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or loss of viability to the population or species.**

I have considered the analysis in EA, Section 3.4, Water Quality and find that the selected alternative is consistent with the **Clean Water Act**. Vegetation removal near water bodies has the potential of increasing solar radiation to surface water, which in turn may increase water temperature. To maintain sufficient stream shading to meet the Clean Water Act, while providing the opportunity to treat Riparian Reserve vegetation to improve riparian conditions, the primary shade zone will remain untreated for perennial streams for the Restoration Thinning on the low severity to unburned areas. Both perennial and intermittent streams as well as wetlands and ponds have no treatment protection buffers as defined in PDC A-6 that will help ensure Clean Water Act requirements are met. Also, no salvage logging will take place in Riparian Reserves.

The **Magnuson-Stevens Fishery Conservation and Management Act (MSA)**, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance essential fish habitat (EFH) for those species regulated under a Federal fisheries management plan – in this case, Middle Columbia River steelhead. The selected alternative will not adversely affect any essential fish habitat (EA, Section 3.5.5). As such, I find

this project to be consistent with MSA.

The National Historic Preservation Act requires consideration be given to the potential effect of federal undertakings on historic resources. This includes historic and precontact cultural resource sites. The guidelines for assessing effects and for consultation are provided in 36 CFR 800. To implement these guidelines, Region 6 of the Forest Service entered an agreement in 2004 with the Oregon State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP). In accordance with the agreement, surveys of the North Fork Mill Creek project area have been conducted and are documented in Heritage Resource Report 2008/0606060/0012. Based on the results of the surveys, a **No Effect** determination has been made for the selected alternative. The SHPO has been consulted as to the determinations made and had no objections with this finding. As such, I find that the selected alternative is consistent with the **National Historic Preservation Act** and all consultation requirements have been met (EA, Section 3.13 and EA, Chapter 4).

All management activities shall comply with all applicable air quality laws and regulations, including the **Clean Air Act** and the Oregon State Implementation Plan. Also, the Forest Service is operating under the Oregon Administrative Rule 629-0048-0001. The Forest Service will comply with the requirements of the Oregon Smoke Management Plan, which is administered by the Oregon Department of Forestry (EA, Section 3.10).

## SUMMARY OF OBJECTION REVIEW PERIOD

This project was subject to pre-decisional administrative review (objection process) pursuant to 36 CFR 218, Subpart B. The pre-decisional administrative review process replaced the appeal process in March of 2013. The primary difference with the objection process is that a person may object to a project prior to the final decision, whereas under the appeal procedures, appeals were made after the decision. The full text of the rule can be found at: <http://www.gpo.gov/fdsys/pkg/FR-2013-03-27/pdf/2013-06857.pdf>.

A draft decision notice and FONSI was distributed according to 36 CFR 218.7 providing a 45-day period for objections to be filed prior to making a final decision. One objection was received from Bark and Oregon Wild [15-06-00-0002-218(B)]. The Regional Forester, the Objection Reviewing Official, held an objection resolution meeting on December 3, 2014.

After reviewing the objections and participating in the objection resolution meeting, I was instructed by the Objection Reviewing Officer to incorporate the following changes into this decision and during future implementation:

- Add the U.S. Fish and Wildlife Service's terms and conditions and conservation recommendation found in the biological opinion (BO)<sup>3</sup> in final decision; and,
- Include the cumulative effects information for Northern spotted owls from BO in the final decision in order to further clarify why there are no measureable cumulative effects.

---

<sup>3</sup> The BO was received on October 3, 2014 after the objection period had begun.

In addition to these instructions, I have clarified the contract modification process and rationale for not selecting Alternative 3 in this final decision based on the comments received and ensuing discussions. The draft decision notice is replaced by this final decision notice.

As such, I believe this is the right course of action in order to achieve the purpose and need for this project. I assessed these changes and find them to be within the range of environmental effects analyzed in the EA. The Regional Forester (Objection Reviewing Officer) has provided written responses to the objections. No further review from any other Forest Service or USDA official of the reviewing officer’s written response to the objections is available (36 CFR 218.11(b)(2)). All objection letters and responses are available in the project record.

## IMPLEMENTATION DATE

Implementation may occur immediately following the date of this final decision.

## CONTACT

For additional information concerning this decision or accompanying Revised Environmental Assessment, please contact Jennie O’Connor Card, Interdisciplinary Team Leader at 406-522-2537 or [jennieoconorcard@fs.fed.us](mailto:jennieoconorcard@fs.fed.us). You may also contact Whitney Olsker, Eastside Silviculturalist, Mt. Hood National Forest at: 6780 Highway 35 Mount Hood-Parkdale, OR 97041; 541-467-5155 (phone); 541-352-7365 (fax); or [wolsker@fs.fed.us](mailto:wolsker@fs.fed.us). Additional information also is available on the project website at: <http://www.fs.usda.gov/goto/mthood/projects>.



**LISA A NORTHROP**  
Forest Supervisor  
Mt. Hood National Forest

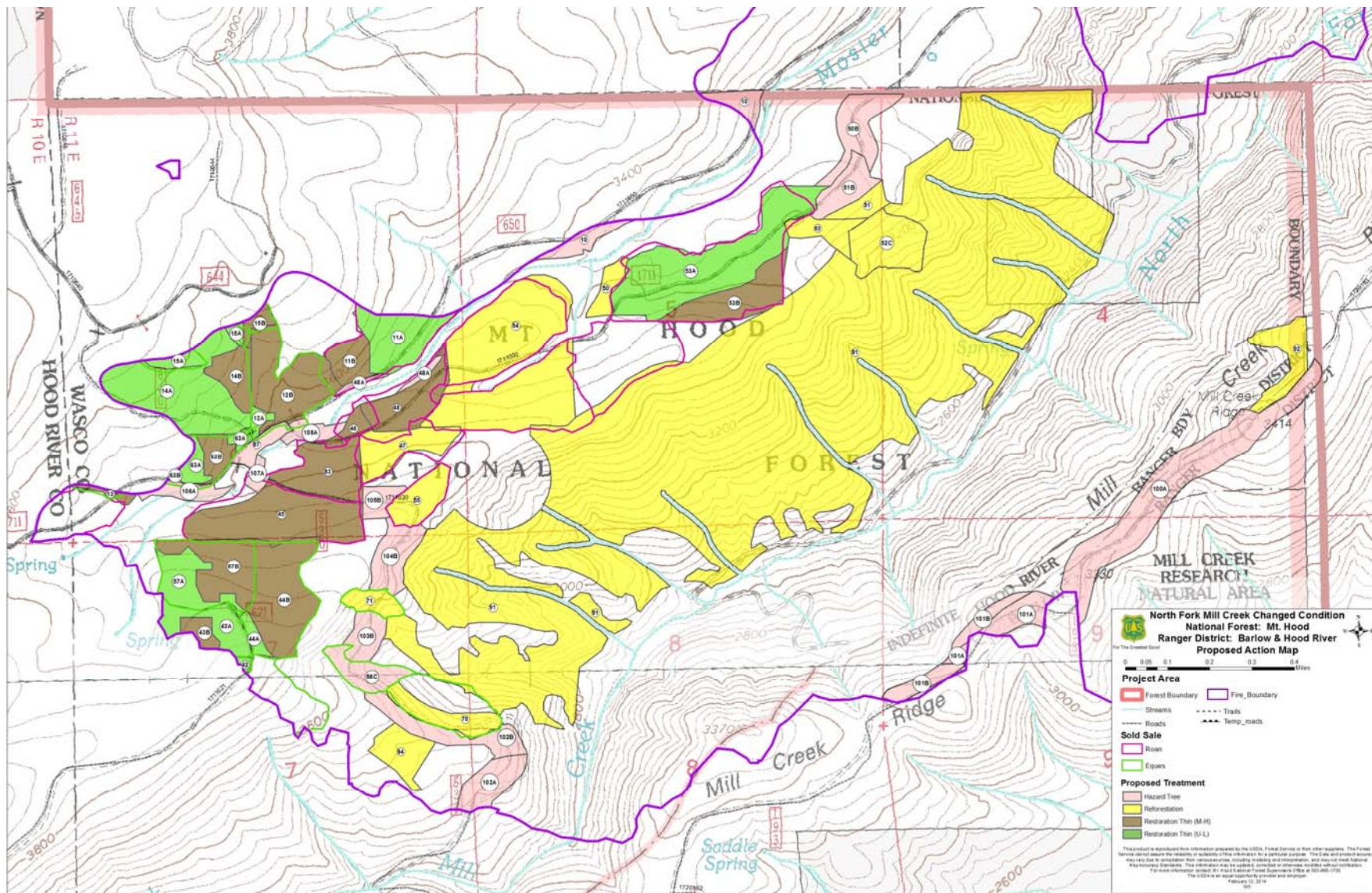


Date

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (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 USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.



# APPENDIX 1: Selected Alternative



Hood River and Barlow Ranger Districts  
Mt. Hood National Forest  
29

**Table 3:** Unit-by-Unit Description of Proposed Action (selected alternative)

Tree Species Abbreviations: DF = Douglas-fir; GF = Grand fir; WWP = Western white pine; PP = Ponderosa Pine; WL = Western Larch); Treatment Abbreviations: U-L = Unburned to Low Severity Burn; M-H = Moderate to High Severity Burn

Unit	Acres	Tree Species	Treatment	Logging System	Temp Road	Land Use Allocation	Fire Regimes	Condition Class	Fuels Treatment
10	8	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground	N/A	B10	III	III	Hand Piling
11A	13	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
11B	6	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
12A	1	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
12B	19	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
13	1	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	C1	III	III	Mechanical and Hand Piling
14A	27	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	B10, C1	III	III	Mechanical and Hand Piling
14B	7	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	B10, C1	III	III	Mechanical and Hand Piling
15A	3	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
15B	2	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
42	1	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	C1/B5	III	III	Mechanical and Hand Piling
43A	8	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	C1/B5	III	III	Mechanical and Hand Piling
43B	3	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	C1/B5	III	III	Mechanical and Hand Piling
44A	2	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	C1/B5	III	III	Mechanical and Hand Piling
44B	21	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	C1/B5	III	III	Mechanical and Hand Piling
45	27	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	C1	III	III	Mechanical and Hand Piling

Unit	Acres	Tree Species	Treatment	Logging System	Temp Road	Land Use Allocation	Fire Regimes	Condition Class	Fuels Treatment
46	3	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
47	11	DF, GF, WWP, PP, WL	Reforestation	Ground	Yes*	B10/B5	III	III	Hand Piling
48	11	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	B10	III	III	Mechanical and Hand Piling
48A	2	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground	N/A	B10	III	III	Hand Piling
50	4	DF, GF, WWP, PP, WL	Reforestation	Ground	N/A	B10	III	III	Hand Piling
50B	10	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground	N/A	B10	III	III	Mechanical and Hand Piling
51	4	DF, GF, WWP, PP, WL	Reforestation	Ground	No	B10	III	III	Mechanical and Hand Piling
51B	7	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground	No	B10	III	III	Mechanical and Hand Piling
52	6	DF, GF, WWP, PP, WL	Reforestation	Ground	No	B10	III	III	Mechanical and Hand Piling
52C	14	DF, GF, WWP, PP, WL	Reforestation	Ground	No	B10	III	III	Mechanical and Hand Piling
53A	37	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	Yes	B10	III	III	Mechanical and Hand Piling
53B	13	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	Yes	B10	III	III	Mechanical and Hand Piling
54	57	DF, GF, WWP, PP, WL	Reforestation	Ground	Yes*	B10	III	III	Mechanical and Hand Piling
55	8	DF, GF, WWP, PP, WL	Reforestation	Skyline	N/A	B10/B5	III	III	Mechanical and Hand Piling
56C	7	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Skyline/ Ground	N/A	B10/B5	III	III	Hand Piling
57A	9	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	C1/B5	III	III	Mechanical and Hand Piling
57B	14	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	C1/B5	III	III	Mechanical and Hand Piling

Unit	Acres	Tree Species	Treatment	Logging System	Temp Road	Land Use Allocation	Fire Regimes	Condition Class	Fuels Treatment
63A	4	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	N/A	C1	III	III	Mechanical and Hand Piling
63B	4	DF, GF, WWP, PP, WL	Restoration Thin (M-H)	Ground	N/A	C1	III	III	Mechanical and Hand Piling
70	8	DF, GF, WWP, PP, WL	Reforestation	Ground	N/A	B10/B5	III	III	Mechanical and Hand Piling
71	4	DF, GF, WWP, PP, WL	Reforestation	Ground	N/A	B10/B5, C1/B5	III	III	Mechanical and Hand Piling
83	14	DF, GF, WWP, PP, WL	Restoration Thin (U-L)	Ground	Yes	B10	III	III	Mechanical and Hand Piling
87	4	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground	N/A	B10	III	III	Hand Piling
91	490	DF, GF, WWP, PP, WL	Reforestation	Hand Work	N/A	B10/B5	III	III	Hand Piling
92	9	DF, GF, WWP, PP, WL	Reforestation	Hand Work	N/A	A6/B10	III	III	Hand Piling
94	8	DF, GF, WWP, PP, WL	Reforestation	Hand Work	N/A	B10/B5, C1/B5	III	III	Hand Piling
100A	36	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	A6/B10, A3	III	III	Mechanical and Hand Piling
101A	7	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	A6/B10, A3	III	III	Mechanical and Hand Piling
101B	7	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	A6/B10,A3	III	III	Mechanical and Hand Piling
102A	8	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	B10/B5, A7	III	III	Hand Piling
102B	10	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	B10/B5, A7	III	III	Hand Piling
103B	6	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	B10/B5	III	III	Hand Piling
104B	9	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	B10/B5, C1/B5	III	III	Hand Piling
105B	4	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/ Hand Work	N/A	B10/B5, C1/B5	III	III	Hand Piling



Unit	Acres	Tree Species	Treatment	Logging System	Temp Road	Land Use Allocation	Fire Regimes	Condition Class	Fuels Treatment
106A	3	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/Hand Work	N/A	C1	III	III	Hand Piling
107A	1	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/Hand Work	N/A	C1, B10	III	III	Hand Piling
108A	2	DF, GF, WWP, PP, WL	Hazard Tree & Reforest	Ground/Hand Work	N/A	B10	III	III	Hand Piling

\* Temporary road from completed thinning operations remains open in the unit. The temporary road will be closed when operations resume.

## APPENDIX 2: Project Design Criteria/Mitigation Measures

The National Environmental Policy Act defines “mitigation” as avoiding, minimizing, rectifying, reducing, eliminating or compensating project impacts. The following project design criteria and mitigation measures are an integral part of this project and will be carried out if the project is implemented under the selected alternative. In most cases, the effects analysis in Chapter 3 is based on these project design criteria and mitigation measures being implemented.

### Fuels:

- F-1. Any mechanical slash piling within units will be done with equipment capable of picking up (grasping) slash material and piling (as opposed to pushing/dozing) thereby meeting the objectives of minimizing detrimental soil impacts. Piles will be covered with water resistant material meeting clean air standards to facilitate consumption of piled fuels. Piles need to be 4-feet wide, 4-feet long, and 6-feet high as a minimum<sup>2</sup>.
- F-2. Hand piles will be constructed with enough fine fuels to allow for ignition during fall and winter months, and covered with water resistant material meeting clean air standards to facilitate consumption of piled fuels. Piles need to be 4-feet wide, 4-feet long, and 6-feet high as a minimum<sup>4</sup>.
- F-3. Piles should be as compact and free of dirt as possible.

### Roads:

- T-1. If a proposal to implement winter logging is presented, the following will be considered by the District Ranger and Responsible Official if the ground is not frozen hard enough and/or insufficient snow depth to support the weight and movement of machinery in moist to wet soil conditions (these are based upon observations and monitoring of winter logging in Sportsman’s Park):
  - a. The proposal will be considered on a unit-by-unit basis using soil types in the area since some soils may be more prone to detrimental damage than others.
  - b. Since the margin of difference between not detrimental and detrimental soil damage could be so slim under moist to wet soil conditions, monitoring of the logging activity may need to occur daily, or more, as agreed to by sale administrator and soil scientist.
  - c. Equipment normally expected to traverse the forest, such as feller bunchers, track mounted shears, etc., will be restricted to skid trails once soil moistures are such that even one or two trips are causing detrimental soil damage out in the unit (i.e., not on landings or skid trails).
  - d. When soils become fully saturated (approach their liquid limit), equipment with a pounds per square inch of 9 or higher will not be used. Typically rubber-tired

---

<sup>4</sup> The Forest Service will meet an *average* width of 8-feet and height of 6-feet for mechanical and hand piles. From past experience with implementation, it is virtually impossible to maintain an exact dimension of fuel piles, so allowance for a small deviation will be made as long as this deviation doesn’t jeopardize meeting the above stated goals.

- equipment (e.g., skidders) will not be permitted under these conditions.
- T-2. Locate new temporary roads and landings outside of Riparian Reserves<sup>5</sup>. Use of existing facilities within riparian reserves may be allowed if erosion potential and sedimentation concerns could be sufficiently mitigated. Existing landings within one site potential tree height from streams, seeps, springs or wetlands will not be used unless the slope between the landing and surface water is thirty percent or less and there is an intact vegetated buffer between the landing and surface water. All temporary roads and landings will be decommissioned immediately after harvest operations are completed.
- T-3. Rock haul and equipment transportation may be allowed outside the Normal Operating Season (generally June 1 to October 31) on aggregate and native surface roads, if the following criteria are met:
- a. Haul routes must be inspected weekly, or more frequently if weather conditions warrant. Inspections by the timber sale administrator (or qualified specialist) will focus on road surface condition, drainage maintenance, and sources of erosion and sediment delivery to streams.
  - b. Sediment traps will be installed where there are potential sediment inputs to streams. Sediment traps will be inspected weekly by the timber sale administrator (or qualified specialist) during the wet season and entrained soil will be removed when the traps have filled to 3/4 capacity. Dispose of these materials in a stable site not hydrologically connected to any stream.
- T-4. Log haul and heavy vehicle transport on paved roads shall be prohibited when the temperature of the road surface, as measured at the lowest elevation along the haul route on National Forest System lands, is above 28 degrees Fahrenheit and when the temperature as measured at the highest elevation on the active haul route is between 28 and 38 degrees Fahrenheit or at any time when the designated Timber Sale Administrator determines that freeze-thaw conditions along the haul route exists or that the subgrade on the paved roads is saturated.
- T-5. Log and rock haul on system and temporary roads shall be prohibited at any time there is 1.5- inches of precipitation within any given 24-hour period as measured at the lowest elevation along the haul route. To measure precipitation, the purchaser may install a temporary rain gauge on National Forest System land near or adjacent to the lowest elevation along the haul route as agreed upon; otherwise, precipitation will be measured according to the Pollywog RAWS station (PYF03). Data for the Pollywog RAWS station can be found at: [http://raws.wrh.noaa.gov/cgi-bin/roman/meso\\_base.cgi?stn=PYFO3](http://raws.wrh.noaa.gov/cgi-bin/roman/meso_base.cgi?stn=PYFO3).
- T-6. Mechanized equipment will not be allowed off the road surface on any A3-Natural Resource Area lands. All logging removal equipment will remain on the road prism.

---

<sup>5</sup> Riparian Reserve refers to the Northwest Forest Plan Riparian Reserve designation.

Soil Resource:

- S-1. All skid trails will be rehabilitated immediately after harvest activities. Landings and temporary roads normally will have erosion control measures installed following fuels or reforestation treatments. If those treatments are anticipated to be delayed beyond the current field season, then temporary effective closure of roads will occur to prevent unauthorized use.
- S-2. In commercial units, ground-based harvest systems should not be used on slopes greater than 30 percent to avoid detrimental soil and/or watershed impacts.
- S-3. Within hazard tree units, the lowest layer logs should be left in place (the logs that are providing maximum ground contact). Leaving these logs in place will help protect the burned soils from gouging and displacement during log removal.
- S-4. Mechanized equipment will not be allowed off the road surface on Forest Service Road (FSR) 1711-630 from Mile Post (MP) 0.3-2.3 (western boundary of Unit 105B to the junction of the FSR 1711-630 and 1700-662). One end suspension and high stumping is required on this road segment.
- S-5. All hazard trees dropped in Unit 56C will remain on site, and all piling needs to be done by hand

Riparian Areas:

- A-1. No vegetation removal or manipulation, (except felling of hazard trees within restoration units) will occur within 60-feet<sup>6</sup> of any perennial and 30-feet<sup>2</sup> of any intermittent streams, seeps, springs or wetlands. This will ensure current stream shading will remain unchanged and protect stream temperatures as well as reduce the likelihood of eroded material entering streams or other wet areas.
- A-2. No ground-based mechanized equipment, including but not limited to tractors or skidders will be allowed within 100-feet<sup>2</sup> of streams, seeps, springs or wetlands. This will reduce the chance of sediment delivery to surface water.
- A-3. Refuel mechanized equipment at least 150-feet from water bodies or as far as possible from the water body where local site conditions do not allow a 150-foot setback to prevent direct delivery of contaminants into water. Parking of mechanized equipment overnight or for longer periods of time shall be at least 150 feet from water bodies or as far as possible from the water body where local site conditions do not allow a 150-foot setback. Absorbent pads will be required under all stationary equipment and fuel storage containers. A Spill Prevention Control and Countermeasures Plan shall be prepared by

---

<sup>6</sup> The Forest Service will meet an *average* distance of 30-feet, 60-feet, or 100-feet from streams, seeps, springs or wetlands. From past experience with implementation, it is virtually impossible to maintain an exact distance from a wet area due to stream sinuosity and dense riparian vegetation so allowance for a small deviation will be made as long as this deviation doesn't jeopardize meeting the above stated goals.

the contractor as required under EPA requirements (40 CFR 112).

- A-4. All trucks used for refueling should carry a hazardous material recovery kit, including absorbent pads to be used during refueling if that occurs in the project area. Any contaminated soil, vegetation or debris must be removed from National Forest System Lands and disposed of in accordance with Oregon State laws.
- A-5. Use erosion control measures where de-vegetation may result in delivery of sediment to adjacent surface water. Soil scientists or hydrologists will assist in evaluation of sites to determine if treatment is necessary and the type of treatment needed to stabilize soils.
- A-6. In Restoration Thin (Unburned to Low Severity) units, fall trees away from the 60-foot unmanaged area of perennial streams or the 30-foot unmanaged area of intermittent streams, seeps, springs or wetlands when possible. Fall trees away from the Riparian Reserve in Restoration Thin (Moderate and High Severity) units when possible.
- A-7. No mechanical fuel piling within Riparian Reserves. Hand piles of slash will be at least 100-feet away from streams, seeps, springs or wetlands.
- A-8. No timber salvage (removal of dead or dying trees) should occur within Riparian Reserves in Moderate and High Severity burn areas.
- A-9. Heavy equipment, such as skidders, dozers, and feller-bunchers, operation will not be allowed outside the Normal Operating Season (generally June 1 – October 31) within Riparian Reserves.
- A-10. Within the hazard tree units, no logs within Riparian Reserves should be removed and all cutting and piling should be done by hand.
- A-11. In Unit 91, hazard trees will be directionally felled towards the creek when possible. Hazard trees that may hit the North Fork Mill Creek stream channel will only be felled from July 15 – September 30.
- A-12. Log haul on Forest Service Road (FSR) 1711630 will occur from July 1 – September 30 from Mile Post (MP) 1.5 (at approximately the southern boundary of Unit 102A) to MP 2.66 (the junction of FSRs 1711630 and 1700662) to prevent road sediment from entering North Fork Mill Creek.

#### Wildlife:

- W-1. Known Northern spotted owl activity centers will be protected through the implementation of seasonal operating restrictions (March 1- July 15) for Units 41C, 42, 47, 54, and 55. In the event that new activity center(s) is/are located during the period of the contract(s) seasonal operating restrictions will be implemented in the area affected.
- W-2. A seasonal operating restriction (restricting harvest and fuels treatment activities) for winter range will be implemented with this project from December 1 through April 1 for

Units 10, 11A, 11B, 12A, 12B, 14A, 14B, 15A, 15B, 46 through 56, 70, and 71.

W-3. To enhance diversity, variable-density thinning will include the retention of snags and wildlife trees where possible.

W-4. In Unit 50B, no logs should be removed within the Late-Successional Reserve.

Botany:

B-1. Machinery should avoid historical populations of *Arabis sparsiflora* var. *atrorubens* (sickle-pod rockcress), an R6 Sensitive species, in Units 101, 100, and 92. Locations to avoid will be mapped, flagged and buffered by approximately 50 meters (164 feet).

Invasive Species:

IS-1. It is recommended that “pre-treatment” occur before any harvest activities are implemented along roads 1700 (treatment sites #66-044 and #66-074) and 1700-662 (treatment sites #66-081 and #66-033). If possible schedule implementation of work from infestation-free areas into infested areas rather than vice-versa.

IS-2. In order to prevent the spread of invasive plants, all equipment will be cleaned of dirt and weeds before entering National Forest System lands. This practice will not apply to service vehicles traveling frequently in and out of the project area that will remain on the roadway.

IS-3. The process for locating all new skid trails and landing locations will be coordinated with a noxious weed specialist so as to insure these locations are not within any currently established noxious weed populations. If necessary, pre-treat existing landings and skid trails that may be used for project implementation where existing infestations present an unacceptable risk of spreading established invasive plant populations.

IS-4. If the need for restoration/revegetation of skid trails and landings is identified, the use of native plant materials are the first choice for meeting this objective where timely natural regeneration of the native plant community is not likely to occur. Non-native, non-invasive plant species may be used in any of the following situations: 1) when needed in emergency conditions to protect basic resource values (e.g., soil stability, water quality and to help prevent the establishment of invasive species), 2) as an interim, non-persistent measure designed to aid in the re-establishment of native plants, 3) if native plant materials are not available, or 4) in permanently altered plant communities.

IS-5. If using straw, hay or mulch for restoration/revegetation in any areas, use only certified, weed-free materials.

IS-6. Inspect active gravel, fill, sand stockpiles, quarry sites, and borrow material for invasive plants before use and transport. Treat or require treatment of infested sources before any use of pit material. Use only gravel, fill, sand, and rock that is judged to be weed free by District or Forest weed specialists.

Recreation (Trails and Campgrounds):

- R-1. Sale Administrator will coordinate trail and road closures and associated signage with eastside recreation staff to lessen impacts to recreationists and Special Use Permit holders.

Heritage Resource Sites:

- HR-1. All designated cultural resource sites (excepting those described in heritage resource design criteria #3 below) requiring protection will have a 100-foot buffer zone where heavy machinery will be excluded. Treatment of vegetation by hand could still occur as necessary.
- HR-2. All culturally-modified trees or trees with insulator mountings will be avoided during harvest activities, unless otherwise specified by the archaeologist.
- HR-3. No new features will be added to the historic Forest Service Road 1711-630, including new ditches or culverts. The road will not be widened and no turnouts will be added. Existing landings will be reused with no new landings adjacent to National Forest Service Road 1711-630. Timber skid trails will be allowed within areas scheduled for reforestation treatments.
- HR-4. No ground based mechanized equipment will be allowed off the road surface into Units 10 and 87 to protect a known heritage resource. All logging removal equipment will remain on the road prism.