

Decision Notice  
& Finding of No Significant Impact  
**Billy Bob Hazardous Fuels Reduction Project**

**USDA Forest Service  
Barlow Ranger District, Mt. Hood National Forest  
Wasco County, Oregon**  
Legal Land Description: T2S, R11E, Sections 1-4 and 8-16

## **Decision and Reasons for the Decision**

### **Background**

The Camp Baldwin Boy Scout property, located within Mt. Hood National Forest on Forest Service Road 44, was identified in the Wasco County Community Wildfire Protection Plan (CWPP) (Hulbert, 2005) as a high risk area in the wildland-urban interface (WUI). The CWPP was initiated by the Wasco County Board of Commissioners and carried out with a collaborative, interagency team. The planning process was designed to meet the guidance in the National Fire Plan and the Healthy Forest Restoration Act of 2003. The primary purpose for the plan is to identify and prioritize areas in the county with high levels of wildfire hazards and to develop a strategy to reduce these hazards (CWPP, page 4). One of the major concerns identified in the CWPP was heavy fuel loads on National Forest System and private forest lands along the western portion of the county and the risk of large forest fires beginning on National Forest System land and moving to adjacent private lands, especially those with residential developments (CWPP, page 6). As part of the CWPP, Camp Baldwin was identified as a high priority for treatment according to a risk rating and recommendations from the Forest Service. The managers of Camp Baldwin have conducted hazardous fuel reduction projects for wildfire protection purposes over the last several years.

In an effort to reduce the risk of wildfire as directed by the CWPP, Camp Baldwin Boy Scout Camp has conducted fuels treatments within their property to ensure the safety of campers during summer months and to protect the structures. To further ensure the safety of the camps and success of the fuel treatments, Camp Baldwin requested that the Barlow District Ranger reduce hazardous fuels and address forest health conditions on the lands adjacent to the camp. The adjacent lands include a 40-acre area with a special use permit issued to the Boy Scouts of America to allow camping. The letter states: "The 40-acre special use permit area has received little treatment from the Forest Service. The white fir trees continue to parish at a rapid rate resulting in a rapid overstocking of fuels within the special use permit area." The letter continues to discuss the immediate threats and future safety concerns to established camp sites within the 40-acre area.

To address these concerns, the Barlow District Ranger convened a collaborative group under the authorities of the Healthy Forest Restoration Act (HFRA) to assist with developing recommended actions. After receiving the recommendations, District personnel began the interdisciplinary process of developing a detailed fuels reduction proposal that would meet the

objectives of the area and respond to the recommendations of the collaborative group.

### **Purpose and Need for Action**

The purpose of this proposal is to reduce hazardous fuels in the area around the Camp Baldwin Boy Scout Camp. The proposed activities would reduce the risk of an uncharacteristically severe wildfire, improve community wildfire protection, and move the landscape toward more sustainable conditions. The underlying needs for this project are for:

- Protecting the structures and improvements on the Camp Baldwin Boy Scout Camp from uncharacteristically severe wildfire;
- Reducing hazardous fuel loadings (excess down wood that contributes to large fire intensity) and fuel ladders (small reproduction that increases potential for crown fire initiation) to reduce fire behavior on National Forest System lands adjacent to Camp Baldwin and nearby private land as well as adjacent lands to the east of the National Forest System boundary; and,
- Changing existing fire Condition Class around Camp Baldwin, private lands, and adjacent private land east of National Forest System boundary to a more historical condition.

Fire suppression efforts over the past 100 years, favorable climatic conditions, vegetation growth and dead fuels resulting from insects and diseases have altered stand composition and structure, and increased tree and brush densities. The high density of the stands contributes to mortality of trees because of competition for nutrients, water and sunlight. Insects and diseases are more likely to kill trees that grow in dense, crowded conditions. Dwarf mistletoe-infected trees, diseased trees, insect-killed trees, and down fuel are creating continuous fuel ladders from the ground to the tree crowns. The majority of the National Forest System lands in the area has been mapped as Condition Class 3, indicating these lands have missed multiple natural fire events and now contain unnaturally high fuel situations. As such, fire regimes have been significantly altered from their natural range; the risk of losing key ecosystem components is high; and vegetation attributes have been appreciably altered.

Vegetation would normally consist of well-spaced fire tolerant species such as ponderosa pine, western larch, white oak, and dry-climate Douglas-fir; frequent fire return intervals of low and moderate intensity would have been expected. The shade-tolerant, thin-barked species such as grand fir, lodgepole pine, and western hemlock would have been thinned out regularly by fire. Historical fire return intervals in the project area are in the 50 years or less (moist Douglas-fir), to the 50-100 year fire return interval of the mixed conifer zone (grand fir, western hemlock, white pine, etc.). These species typically have a low to moderate fire tolerance. Low intensity, high frequency fires do not occur with higher moisture amounts and greater fuel loadings.

Stand structure changes from lack of fire include a much higher stocking level of fire-tolerant species, an increase of shade-tolerant species in the intermediate layer, an increased shrub and reproduction component, and fewer openings associated with the natural stands. This change results in stands that are more likely to experience a higher intensity fire, with stand-replacing consequences. Currently, the project area includes a variety of unhealthy, mature stands that have a higher risk of damage from catastrophic fire. For example, stands previously dominated by

ponderosa pine and western larch are losing the pine component caused by stress from competing for water with grand fir. Western larch requires full sunlight and a mineral soil seedbed to establish, conditions historically provided by periodic wildfire. Diseased trees, insect killed trees, and down fuel are creating continuous fuel ladders from the ground to the tree crowns (see Figure 1-2: Existing Conditions).

The environmental assessment documents the analysis of the Proposed Action to meet this purpose and need for action, according to the Healthy Forest Restoration Act (HFRA) direction.

### **Desired Future Condition/Land Allocations**

The desired future condition of the project is to develop an uneven-aged stand with canopy closure that would allow fire behavior to change from crown fire to surface fire, and to have stand species composition reflecting Condition Class 1 (ponderosa pine, western larch, white oak, and dry-climate Douglas-fir). Achieving this desired future condition would enable meeting the overall goals of the land allocations within the project area (see EA Chapter 1, Figure 1-3).

Several land allocations as designated by the Forest Plan and Northwest Forest Plan are found within the project area (see EA, Figure 1-4). The two Forest Plan land allocations are Scenic Viewshed (B2) and Special Emphasis Watershed (B6). The goal for scenic viewsheds is to provide attractive, visually appealing forest scenery with a wide variety of natural appearing landscape features; and to utilize vegetation management activities to increase and maintain a long-term desired landscape character (Forest Plan, Four-218). A large portion of the project is located within the Dufur Mill Road (Road 44) viewshed. The Dufur Mill Road has a visual quality objective (VQO) of retention in the foreground and a VQO of partial retention in the middle ground and background (Forest Plan, Four-222). The goal for special emphasis watershed is to maintain or improve watershed, riparian and aquatic habitat conditions and water quality for municipal uses and/or long-term fish production. A secondary goal is to maintain a healthy forest condition through a variety of timber management practices (Forest Plan, Four-246).

The western boundary of the project area is part of Surveyor's Ridge Late Successional Reserve, as designated by the Northwest Forest Plan. The eastern boundary of the project area is private land, and the Camp Baldwin Boy Scout Camp.

### **Decision**

I have decided to implement the Proposed Action described in the Billy Bob Hazardous Fuels Reduction Environmental Assessment. The Environmental Assessment was prepared under the authorities contained in the Healthy Forests Restoration Act (HFRA, 2003). This project is designed to reduce hazardous fuels in the wildland-urban interface (WUI) around Camp Baldwin Boy Scouts Camp on the Barlow Ranger District of Mt. Hood National Forest. The project is located approximately 12 air miles west of Dufur, Oregon along Forest Service Road 44. The legal description for the project area is: T2S, R11E, Sections 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, and 16. The Proposed Action is within the WUI for the Camp Baldwin area.

The Proposed Action is designed to reduce fuel loading in the Billy Bob project area by reducing fuels in the three fuel layers: crown or canopy fuels, ladder fuels and surface fuels. Crown and ladder fuels would be reduced by commercial and non-commercial thinning treatments. Surface fuels would be reduced through hand or excavator piling and burning piles, and/or underburning. Underburning can also accomplish additional crown and ladder fuel reduction. Hazardous fuels would be reduced with mechanical treatments on approximately 1000 acres, and by underburning approximately 3000 acres around the area of Camp Baldwin Boy Scout Camp.

The stands proposed for fuel reduction would average 40 to 60 trees per acre after treatment. The target canopy closure of remaining overstory would be 40 percent to 60 percent, depending on slope and the condition of potential trees to be retained within a stand. Achieving this canopy closure is extremely difficult in many areas. The largest trees were removed from the entire project area many decades ago, and the residual stands are heavily infected with dwarf mistletoe and most have centers of root disease. It is unlikely that these stands would be in their present condition if fire had played its natural (i.e., sanitizing) role in this landscape. Fuel reduction activities through root disease centers is likely to result in some patch openings. Where root disease is identified, disease resistant species would be left. Stand density would vary with the availability of healthy leave trees. Some pruning of trees may occur in or around entrances and camping areas to the three campgrounds in the project area (Eight Mile and Lower Eight Mile Campground, and the Underhill site) after fuel reduction activities to further reduce ladder fuels in remaining overstory. Table 1 summarizes the proposed treatments, and Appendix 1 provides detailed treatments for each unit.

**Table 1: Summary of Proposed Treatments**

<b>TREATMENT</b>	<b>ACRES</b>
Thin and prune (CTP)	304
Thin, prune and underburn (CTPU)	407
Thin and underburn (CTU)	5
Hand thin	36
Thin saplings (PCT)	94
Thin saplings and prune (PCTP)	13
Thin saplings, prune, and underburn (PCTU)	9
Thin saplings and underburn (PCTU)	98
Prune	97
Stewardship	65
Underburn	276
<b>TOTAL</b>	<b>1406</b>

Unit 21 is the 40-acre National Forest System parcel within the privately-owned boundary of Camp Baldwin. Unit 21 includes established, semi-permanent camp sites that are managed through a special use permit issued to Boy Scouts of America. The Forest Service is responsible for the vegetation management within the special use area. Previous treatments had provided most of the fuels reduction needed for the unit; however, the Forest Service would remove

hazard trees and snags in the camping areas and horse trail. The trees would be left on the ground for down woody material or used for Boy Scout activities. There is approximately a five to ten acre unit along the eastern boundary that may need treatments involving thinning of small diameter material and hand piling, then burning the piles. Some or all of these areas could be underburned in the future, depending on stand conditions after hand/mechanical treatment. The emphasis within this area would be to ensure the future safety of the campers and camp sites. All vegetation management operations would be coordinated with the Boy Scouts and would not occur from June until August while camp is in session, as indicated in the Design Criteria/Mitigation Measures for this project (see Appendix 2).

Treatment within 100-feet of an intermittent stream would be limited to hand treatment or left untreated completely. Similarly, within 150-feet of a perennial stream, activities would be limited to hand treatment or left untreated completely. These riparian treatments apply to all units. Snags would be retained to meet habitat requirements for the Northern spotted owl. Also, snags would be created through the girdling of trees infected with dwarf mistletoe. A minimum of 110 linear feet of down woody material and an average of four snags per acre would be retained. Snags to be created by girdling trees infected with dwarf mistletoe are included in this number.

To improve the habitat for the Northern spotted owls, the 100-acre Late-Successional Reserve (LSR) within the project area was moved as part of the Proposed Action (see EA, Figure 2-3). The owls were not occupying the originally designated habitat because younger stands and the 4400 Road fragmented the LSR. The LSR was moved to the west side of the road to include the historical activity center for a pair of spotted owls and to include more unfragmented suitable habitat. Lastly, moving the 100-acre LSR separated the habitat from harvest activities on adjacent lands, which provides better habitat for spotted owls and is more compatible with the goals and objectives of the LSR.

The area is moderately roaded from past forest management activities and recreation use. Most areas would use available roads and skid trails existing from past activities. A few temporary roads may be constructed for removal of vegetation, but these roads would be rehabilitated at the end of the project. No more than three miles of temporary roads would be constructed for this project (see Figure 2-4: Map of Proposed Temporary Roads). The proposed temporary roads may change as the project is implemented, in order to minimize any potential damage to natural resources.

## Change from EA

The Billy Bob Hazardous Fuels Reduction project is currently being laid out on-the-ground. During layout, several treatments were changed to accommodate differences between the assumptions during analysis and conditions on-the-ground. All of the changes are within the effects analysis provided within the EA documents because no additional acres or tractor, ground based logging was added to the project. The changes detailed in Table 2 replace the treatments found in Appendix 1 (EA Table 2-2).

**Table 2:** Changes in units between Preliminary EA and Final EA/Decision Notice.

The abbreviations used in the table are defined as follows. Treatment: CTPU = Thin, prune and underburn; CTP = Thin and prune; CTU = Thin and underburn; CT = Thin; PCTP = thin saplings and prune; PCT = thin saplings; PCTU = Thin saplings and underburn; UB = Underburn. DMT = dwarf mistletoe. Species: DF = Douglas-fir; WL = western larch; PP = ponderosa pine

Unit	Treatment	Updated Treatment	Yarding	Unit Acres		Target CC (%)	Comments
				EA	Change		
1	CTPU		Tractor	38	18	60	Decrease in size due to wet drainages. 7 acres became Unit 24.
3	CTP		Tractor	105	102	40	25-acres of cable ground extracted and given Unit number 4
4	CT		Tractor	8	25	40	Changed to PCT and number 38. Unit 4 assigned to cable ground from Unit 3.
16	CTPU		Tractor	32	32	40	Existing canopy cover is about 20%
21	CTP	Fire Crew	Tractor	34	34	60	Change to drop and leave hazard trees, hand thin small suppressed trees, and handpile.
23	CTP	Stewardship		25	25	60	Eightmile Campground, Riparian. Hazard trees previously felled. Thin a portion of the small suppressed trees.
24	CTPU	Stewardship	Tractor	N/A	7	60	Originally part of Unit 1. Remove GF up to 10" dbh. Remove DF, ES, WH up to 7".
33	PCT	PCTU		31	31	50	Masticate brush, prune, handpile and underburn
38	PCTP		Non-commercial mechanical	N/A	8	40	Changed from commercial to non-commercial. Originally #4.
41	Hand Thin	Removed from Project	Handpile	3	N/A		Lower Eightmile CG, Riparian. Danger trees have been felled.

## Mt. Hood Land and Resource Management Plan Consistency

Standards and guidelines in the Mt. Hood Forest Plan were not written to address hazardous fuels reduction. When the Mt. Hood Forest Plan was written, it emphasized traditional timber sales, rather than fuels reduction projects. The following standards would not be met with this proposal.

- Detrimental Soil Impacts (FW-022): The combined cumulative detrimental impacts, occurring from both past and planned activities, of detrimental soil compaction, puddling, displacement, erosion or severely burned soil should not exceed 15 percent of the activity area.

Unit 19 is adjacent to Road 44 and/or surrounded by lands belonging to the Boy Scouts. It is likely this unit already exceeds the 15 percent standard due to impacts such as vegetation management, installation of a buried irrigation pipeline parallel to Forest Road 4400, and extensive crisscrossing pathways caused by campers. In Unit 19, the amount and resulting effect from detrimental soil condition would be very similar in appearance to the vegetation treatments and burning that occurred east of this area adjacent to the north side of Forest Road 4400. The only area expected to receive additional impacts and not meet Forest Plan Standard FW-022 is Unit 19. See EA, Chapter 3, Soil Productivity section for more details.

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

It is likely organic matter tonnage would be reduced to levels below Forest Plan Standard FW-033, especially in the higher fire frequency 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 would 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, and many of the soils impacted would retain substantial organic matter reserves in the mineral topsoil due the way in which they have developed. See EA, Chapter 3, Soil Productivity section for more details.

- Snags (FW-215): Where new timber harvest units occur, wildlife trees (i.e., snags and green reserve trees) should be maintained in sufficient quantity and quality to support over time at least 60 percent of the maximum biological potential of primary cavity nesting species.

Tree removal would reduce snags, down wood and canopy closure. The project does not impact any designated marten or pileated woodpecker habitat areas (B5) designated in the Mt. Hood Forest Plan. The proposed project would reduce snags and down wood to the

30 percent level. This would impact these species negatively within the planning area; however, adequate snags and down wood would still persist within the watershed. The trade-off for not meeting Forest Plan Standard FW-215 is reducing the hazardous fuels within the project area and meeting the purpose and need for action. Project Criteria/Mitigation Measures are incorporated into the Proposed Action to ensure that there is no major impact because adequate snags and down wood would be retained within the watershed. See EA, Chapter 3, Wildlife Resources section for more details.

- Down Wood Material (FW-219): An average total of at least six logs per acre in decomposition classes 1, 2 and 3 should be retained in all project activity areas.

Like many dynamic processes, soils form and can change as other ecological processes are altered, such as fire return interval. Nature will store organic matter reserves in the mineral soil or on top of it. This project would reduce our medium to coarse woody debris levels to below the Forest Plan Standard FW-219 (above ground storage); however, over the longer term as forest floor vegetation responds to additional sunlight and more frequent fire, there should be more below ground storage in the fine roots of grasses, forbs, and non-woody stemmed plants. Soils developed under more frequent fire returns tend to have a more developed, darker topsoil that 'stores and protects' site organic matter from loss during fire. Like many of the ecological processes, this is as it should be in terms of soil development, which does not mesh well with our blanket standard for tonnage levels on the far eastside of the Forest. See EA, Chapter 3, Soil Productivity section for more details.

- Silvicultural Systems (FW-333): Uneven-age management should not be applied on slopes where cable logging systems would 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.

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 specify appropriate Project Criteria/Mitigation Measures in management areas where uneven-aged management is being considered to fulfill resource objectives other than timber production (Forest Plan, Four-88). The objective of this project is fuels reduction while maintaining structure for aesthetics, wildlife, nutrient cycling, future stand composition and health. Project Criteria/Mitigation Measures create patch openings, girdle mistletoe-infected trees, underburn, and use directional falling techniques to limit residual tree damage on cable logged slopes which are part of the design of the Proposed Action. The expected condition after harvest is reduced mistletoe infestation creating a more open forest with a



greater grass, forb, and shrub undergrowth. See EA, Chapter 3, Vegetation Resources section for more details.

- Visual Resource Management (FW-556): The prescribed VQO [visual quality objective] should be achieved within one year after completion of any project activities.
- Visual Resource Management (B2-015): Unacceptable changes in form, line, color and/or texture resultant from management activities should be corrected with the first year after the activity.

Experience has shown it is not possible to attain the visual quality objective of retention when such large quantities of fuel need to be removed. The foreground of Dufur Mill Road is designated as a retention visual quality objective (VQO). Even if landings, skid trails, and temporary roads are not evident, stumps, slash and disturbed ground make management activities obvious for a period of time. The trade-off for not meeting Visual Quality Standards FW-556 and B2-015 for a 5 to 10 year period is that a long-term improvement can be achieved much more quickly by treating all of the stands in the visible foreground now. Project Criteria/Mitigation Measures to hide skid roads, landings and slash piles from the foreground view would aid in meeting objectives; however, given the prescribed treatments, the views in the project area would most likely only meet the visual quality objective of partial retention, with many areas only meeting modification following treatment, not retention as prescribed in the Forest Plan. With careful implementation and management, it should be possible to meet partial retention over most of the project area within five years, and retention over most of the area in 10 years or less. See EA, Chapter 3 Visual Quality section for more details.

Exceptions to these standards are required to meet the purpose and need of effective fuel reduction. These exceptions were identified during the interdisciplinary planning analysis and the analysis concluded that these exceptions were within the purpose and need for action. All other standards and guidelines are expected to be met with this proposal.

## **Rationale for the Decision**

When compared to the No Action Alternative, the selected alternative will improve the ability of wildland fire fighters to safely engage a wildfire in the vicinity of the Camp Baldwin Boy Scout Camp, and lessen the likelihood of a crown fire running into or out of the camp. Reducing hazardous fuels and overall wildland fire hazard minimizes the safety concerns to established camp sites and campers. The selected alternative meets the intent of the Healthy Forest Restoration Act to reduce fire hazards within a wildland urban interface. The potential for tree mortality from insects and disease will be reduced over a portion of the area by thinning in overstocked stands. Treating the accumulated natural fuels will reduce the overall risk of uncharacteristically severe wildland fire. Treated areas will be returned to Condition Class 1, where fire will function as it did historically, in a stand maintenance mode rather than as a stand-replacement event.

The selected alternative protects cultural resources, improves forage quantity and quality, and

addresses the visual appearance of treated areas. Under the treatment regime of the selected alternative, forage improvement for big game and other wildlife should be effective for 20 to 25 years. Fuel treatments should be effective for about the same time before stand growth creates fuel conditions that may require another treatment, such as a maintenance underburn.

Known cultural sites were avoided by unit design and buffers will be used for additional protection. Units will be adjusted to protect sites during layout when needed. Water quality and quantity will not be negatively affected by the fuels treatment activities.

## **Other Alternatives Considered**

In addition to the selected alternative, I considered the No Action Alternative. A comparison of the two alternatives can be found in the EA on pages 2-25 to 2-26. The Healthy Forest Restoration Act allows the consideration of a limited number of alternatives [HR 1904, Section 104(c)(1)]. Under the No Action Alternative, current management plans would continue to guide management of the project area: Camp Baldwin Boy Scout Camp would not be protected from uncharacteristically severe wildfire; hazardous fuels loads and fuels ladders would continue to increase the risk of an uncharacteristic wildlife; and the fire Condition Class would remain unchanged. Overall, the No Action Alternative does not meet the purpose and need.

Besides the two alternatives considered in detail, I considered two alternatives that were not analyzed in detail. These alternatives were minimal fuel reduction within the scenic viewshed and diameter limit plantation thinning. The rationale for not analyzing these alternatives in detail can be found in EA Chapter 2.

## **Public Involvement**

### Collaboration

This project lies within an area identified in the Wasco County Community Wildfire Protection Plan (CWPP) as a high priority for treatment within the wildland-urban interface. The CWPP was prepared in a collaborative effort by individuals and agencies in Wasco County. In an effort to reduce the risk of wildfire as directed by the CWPP, Camp Baldwin Boy Scout Camp has conducted fuels treatments within their property to ensure the safety of campers during summer months and to protect the structures. To further ensure the safety of the camps and success of the fuel treatments, Camp Baldwin requested that the Barlow District Ranger convene a collaborative group made up of individuals and agencies to identify specific projects within the Billy Bob planning area.

The following project specific collaborative efforts were undertaken on this project:

- On November 22, 2005, the District mailed out an invitation for a collaboration meeting asking people to attend who were interested in helping to design fuels reduction and

restoration projects in and around Camp Baldwin, Forest Service Road 44. Invitations were mailed to Federal, State, and local agencies, the Confederated Tribes of Warm Springs, environmental advocacy groups, adjacent property owners, recreational groups, and the general public. The District also issued a press release announcing the meeting.

- Eleven people attended the first collaboration meeting held on December 13, 2005. This included representatives from federal and state agencies (USDA Forest Service, U.S. Fish & Wildlife Service), watershed councils (Wasco County Soil and Water Conservation District), environmental groups (Oregon Wild), private citizens, neighboring landowners (Camp Baldwin, Woodland Management Inc.), and recreational organizations (Columbia Gorge Power Sledders).
- Collaborative representatives met from December 2005 to March 2006 to identify projects to reduce the risk of wildfire around Camp Baldwin. The group recommended fuels reduction treatments that focus on thinning of dead, dying and diseased trees; removing ladder fuels; reducing crown density to a level that a crown fire could not easily carry through the forest; and underburning. Other recommendations included plantation thinning, road decommissioning, and an educational outreach focused on the role of fire placed at the Underhill Site (an area near Camp Baldwin set aside for environmental education). The full text of the collaborative group's recommendations can be found in EA, Appendix 1.

### Consultation

Confederated Tribes of the Warm Springs Indian Reservation was consulted on this project and did not express any issues with the proposed project. Communication with the tribe can be found in the project record.

The effects to Northern spotted owls for this project were consulted on with the US Fish and Wildlife Service through formal consultation on FY 2007-2008 projects 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). No consultation was necessary with National Marine Fisheries Service.

Based on the results of the surveys of historic and prehistoric cultural resource sites, No Effect determination has been made for the Proposed Action. The State Historic Preservation Office has been consulted as to the determinations made and had no objections with this finding.

### Scoping/Public Involvement

The hazardous fuels reduction proposal was listed in the Mt. Hood National Forest quarterly planning newsletter (Schedule of Proposed Actions [SOPA]). No comments were received through that effort. In June 2007, a letter providing information and seeking public comment was mailed to 107 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. Comments were received from representatives of Oregon Wild (formerly ONRC), Bark, Mazamas, Woodland Management Inc., and one individual.

As required by HFRA, a public meeting was held on June 5, 2007 at the Barlow Ranger Station at Dufur, Oregon. The meeting was announced in *The Oregonian* as part of a legal notice of the public meeting and news releases were sent to *The Dalles Chronicle*. Five individuals attended the meeting: Oregon Wild, Woodland Management Inc., and three interested individuals. All attendees had participated in the collaborative working group. A summary of the public comments received during the scoping period and public meeting are include in EA, Appendix 2.

## Issues

Using the comments from the collaborative effort, the general public and other agencies, the interdisciplinary team developed a list of issues to address. Issues identified during scoping are normally addressed by developing alternatives to the Proposed Action; however, no alternatives are required for this HFRA project. Instead, the project team considered all the comments received during collaboration and scoping and refined the proposal presented in EA Chapter 2 to address the following public issues:

- Large Tree Retention: All old growth characteristics and trees with older qualities (thick bark, yellowing bark, flat top, asymmetric crown, broken tops, forked tops, etc.) should be maintained.
- Temporary Roads: Creating temporary roads may lead to resource damage, especially if these roads are not successfully obliterated upon completion of the project.
- Visual Quality: The visual aspect of the Mt. Hood Forest seen from hiking trails is very important to hikers. Visual quality objectives in the scenic viewshed of Dufur Mill Road as seen from Road 44 should be maintained.

## Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an Environmental Impact Statement will not be prepared. I base my finding on the following:

### **1. Analysis of the beneficial and adverse impacts (see EA Chapter 3 for full discussion of beneficial and adverse effects):**

My finding of no significant environmental effects is not biased by the beneficial effects of the action. I find that my decision would have neither a significant beneficial or adverse impact because the acres treated are a small percentage of similar acres across the landscape, and the anticipated effects are similar to those in past fuel reduction projects, which have not proven to cause significant impacts. The Condition Class within the project area is less than 20 percent; however, this change would modify the stands

adjacent to the private land from current Condition Class 3 to a Condition Class 2 or 1, and maintain some of the existing Condition Class 1 areas previously treated (EA, page 3-5 to 3-6). Overall, this is a very small portion of the Condition Class 3 acres found on the Barlow Ranger District. Project effects are limited to the project area, except smoke which is transported out of the treated areas. The project changes the current condition by moving forest and fuel conditions toward the natural conditions found historically in the area prior to fire suppression. This should have the added benefit of making future fuel and silvicultural actions less intensive and less expensive. This it is not a significant federal action.

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

There will be no significant effects on public health and safety because fuel reduction activities are not generally known to negatively impact public health and safety (EA, page 3-131). Burning of activity fuels will be conducted according to the operation guidance for the Oregon Smoke Management Program (EA, page 3-18). The impact is not significant because the area treated is a small component of a much larger area with high fire hazard, and because weather conditions and the random nature of fire ignitions make it impossible to project more than potential benefits. The safety of adjacent landowners and campers at Camp Baldwin Boy Scout Camp will be increased by reducing the overall risk of catastrophic wildfire (EA, page 3-14 to 3-15).

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

No prime farmlands, parklands, wild and scenic rivers, or ecologically critical areas are found within the project area. Historic and cultural resources have been protected by project design, and wetlands and streams have been buffered (see Appendix 2 for Project Criteria/Mitigation Measures). Riparian areas are protected by project design (see Appendix 2). Essential fish habitat will not be adversely affected (EA, page 3-80).

Priority 1 areas of Billy Bob project area contain 295 acres of nesting, roosting, and foraging habitat (NRF) habitat and 320 acres of dispersal habitat for Northern spotted owls. Priority 2 areas have 265 acres of NRF and 116 acres of dispersal habitat. The boundary of the 100-acre Late Successional Reserve (LSR) (activity center #1142) was moved outside Priority 1 areas and closer to Forest Service Road 4430. The 100-acre LSR was moved because the owls were not occupying the habitat in the originally designated LSR. The habitat in the original LSR was fragmented by younger stands and the 4440 Road. The LSR was moved to the west side of the road to include the historical activity center for a pair of spotted owls, and to include move unfragmented suitable habitat. The number of acres remains the same for LSR #1142 (EA, page 3-88).

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

The effects on the quality of the human environment are not likely to be highly controversial. There is no known scientific controversy over the impacts of the project. The types of activities proposed have taken place in similar areas and the resulting effects

are well-known and understood.

**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 Billy Bob Hazardous Fuels Reduction project. Activities approved in this decision are routine projects similar to those that have been implemented under the Mt. Hood National Forest Land and Resource Management Plan over the past 17 years. None are unique or involve unknown risks.

**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.

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

Each resource effects analysis contained in the EA discusses cumulative effects; none were found to be significant (EA, Chapter 3).

**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 due to the Project Criteria/Mitigation Measures that will be implemented as part of this project (see Appendix 2). The action also will not cause loss or destruction of significant scientific, cultural, or historical resources because protective measures were part of the project design (EA, pages 3-125 to 3-130). Cultural resource surveys were conducted on a planning area scale and documented in Heritage Resource Reports 2006/060601/0005 and 2006/060601/0006. Survey methodology was conducted in accordance with the 2004 agreement between Region 6 of the Forest Service, State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation. SHPO was consulted as to the determination made and had no objections with this finding.

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

The action complies with the Endangered Species Act of 1973 for wildlife, aquatic and botanical species. There is no bald eagle habitat in the planning area. Canada lynx and Northern spotted owls are not present in the planning area. Tree removal activities on 300 acres that downgrade or remove habitat have a “may affect and likely to adversely affect” determination for Northern spotted owls. Tree removal activities on 701 acres which degrade habitat and disturbance related activities would have a “may affect and not likely

to adversely affect” determination for spotted owls. The effects to spotted owls for this project was consulted on with the U.S. Fish and Wildlife Service through formal consultation on FY 2007-2008 projects 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). Reducing the risk of catastrophic wildlife will protect Northern spotted owl habitat. Therefore, this project has both positive and negative effects on Northern spotted owls.

No fish species listed as threatened, endangered, proposed, or sensitive will be adversely affected by this project (EA, Table 3-35). The Proposed Action has a “may affect, not likely to adversely affect” determination for Middle Columbia River steelhead and critical habitat. The Proposed Action will have no effect on Essential Fish Habitat for any species in the project area as designated under the 1996 Amendment to the Magnuson-Stevens Fishery Conservation and Management Act (EA, page 3-80).

There are no threatened or endangered botanical species in the planning area.

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

Discussion of compliance with environmental laws or requirements is identified in the preceding paragraph and in the following section on compliance with other laws and regulations. This project will not violate any environmental laws and regulations.

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

The project was prepared consistent with the requirements of the **National Environmental Policy Act** (NEPA), its implementing regulations, the Forest Service NEPA handbook, and the **Healthy Forest Restoration Act** (HFRA) (as discussed in above).

This decision to protect structures and improvement on the Camp Baldwin Boy Scout Camp from uncharacteristically severe wildfire and to reduce hazardous fuel loads and fuel ladders is consistent with the **National Forest Management Act**, and the intent of the Forest Plan's long term goals and objectives. The project incorporates appropriate land and resource management plan guidelines for scenic viewsheds and special emphasis watersheds. The project area will be managed to provide attractive, visually appealing forest scenery with a wide variety of natural appearing landscape features; and to utilize vegetation management activities to increase and maintain a long-term desired landscape characteristics (Forest Plan, Four-218). Also, the project area will be managed to maintain and improve watershed, riparian and aquatic habitat conditions and water quality for long-term fish production (Forest Plan, Four-222). The project is consistent with the **Mt. Hood National Forest Land and Resource Management Plan**, as amended by the **Northwest Forest Plan** and its standards and guidelines except as noted above.

A portion of the allotment is located in the Surveyor’s Ridge LSR, as designated by the Northwest Forest Plan. The project is consistent with **late-successional reserve** (LSR) objectives, as stated in the Surveyor’s Ridge LSR Assessment.

For aquatic species, the action will have no impact for Basalt Juga, and “will have a 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 Interior Redband Trout and Basalt Juga. These are the only **survey and manage aquatic species** found within the project area. There are no known Forest Service, Region 6 **botanical sensitive or survey and manage species** within the project area.

For wildlife species, it was determined that the actions “may impact individuals, but are not likely to impact populations, nor contribute to a potential loss of viability of this species” for wolverine and Oregon slender salamander (EA, Table 3-37) due to increased human activity. There will be no impact to the Larch Mountain salamander, Pacific fisher, Crater Lake tightcoil, Puget oregonium, Columbia oregonium, Dalles sideband, evening field slug, or great gray owl. The project areas would maintain a minimum of 110 linear feet of down woody material and four snags per acre would be retained. Therefore, the populations of these species would persist. Without action, more of the species habitat would be at risk to be lost or altered by landscape wildfires. These are the only Forest Service, Region 6 **sensitive or survey and manage wildlife species** found within the project area.

I have considered the effects to **management indicator species** (MIS) as disclosed in the EA (EA, page 3-83 and 3-90 to 3-92). Wildlife MIS include mule/blacktailed deer, Rocky Mountain elk, marten, pileated woodpecker, western gray squirrel, wild turkey and snag and down log associated species. MIS aquatic species include all salmonids.

The project is consistent with the **Aquatic Conservation Strategy** objectives. 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. 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, pages 3-99 to 3-105). Also, this project will meet **Clean Water Act** standards (EA, page 3-54 to 3-59).

Finally, by considering the prevention of invasive plant introduction, establishment and spread of invasive plants (EA, pages 3-108 to 3-112), the planning process is consistent with the Pacific Northwest **Invasive Plant** Program Preventing and Managing Invasive Plants Record of Decision issued in 2005. Project Criteria/Mitigation Measures are included to prevent the spread and establishment of invasive plants, see Appendix 2.

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 629-43-043**. The Forest Service is complying and would continue to comply with the requirements of the **Oregon Smoke Management Plan**, which is administered by the Oregon Department of Forestry (EA, page 3-18).



## Administrative Review or Appeal Opportunities

This decision is not subject to appeal pursuant to 36 CFR 215.12 (Decisions and actions not subject to appeal). The objection process pursuant to 36 CFR 218 provided the sole means of administrative review for this HFRA project. The response to the objectors dated November 9, 2007 is the final review of this project by any Forest Service or Department of Agriculture official.

## Implementation Date

Implementation of this project may begin immediately.

## Contact

For additional information concerning this decision, contact Jennie O'Connor, Natural Resource Planner, Hood River Ranger District, 6780 Highway 35, Mt.Hood-Parkdale, OR 97041; phone 541-352-6002 x634.

/s/ Gary L Larsen  
GARY L. LARSEN  
Forest Supervisor  
Mt.Hood National Forest

January 29, 2007  
Date

### Appendix 1: Treatment Prescriptions for Billy Bob Hazardous Fuels Reduction Project

Treatment prescriptions by treatment units and priority. The abbreviations used in the table are defined as follows. Treatment: CTPU = Thin, prune and underburn; CTP = Thin and prune; CTU = Thin and underburn; CT = Thin; PCTP = thin saplings and prune; PCT = thin saplings; PCTU = Thin saplings and underburn; UB = Underburn. DMT = dwarf mistletoe. Species: DF = Douglas-fir; WL = western larch; PP = ponderosa pine

Unit	Priority	Treatment	Yarding	Underburn	Comments	Girdle Dwarf Mistletoe trees	Approx Acres	Target Canopy Cover (%)
1	2	CTPU	Tractor	Yes	DF DMT; 8-Mile Creek; trail	Yes	18	60
2	3	CTP	Tractor	Defer	8-Mile Creek		31	60
3	1	CTP	Tractor		DF DMT heavy; WL; Root disease; Plant PP	Yes	105	40
4	2	CT	Tractor		DF DMT heavy; Root disease; Plant PP	Yes	8	40
5	2	CTP	Tractor	Defer	DMT DF; Dead GF	Yes	24	40
6	2	CTP	Tractor	Defer	DF DMT heavy; Root disease; Plant PP, WL; 8-Mile Creek	Yes	73	60
7	1	CTPU	Tractor	Yes	DF, WL, PP DMT; Root disease; Plant PP	Yes	37	50
8	2	CTPU	Tractor	Yes	Root disease; Plant PP, WL; DMT WL; Hand thin larch patches	Yes	49	40
9	2	CTPU	Tractor	Yes	DF DMT heavy; Root disease; Plant PP	Yes	17	60
10	2	CTP	Cable		DF DMT; Root disease	Yes	13	60
11	2	CTPU	Tractor	Yes			4	40
12	1	CTPU	Cable	1/2	DF DMT	Yes	35	40
13	2	CTPU	Cable	Defer	DF DMT	Yes	6	60
14	2	CTPU	Tractor	Yes	DF DMT heavy	Yes	20	60
15	2	CTPU	Tractor	Yes	DMT in DF, PP	Yes	16	40
16	2	CTPU	Tractor	Yes	DF, WL, PP DMT; Root disease; Plant PP	Yes	32	40
17	1	CTU	Tractor	Yes	Root disease; DMT DF, PP, WL	Yes	5	40
18	1	CTP	Cable	Defer	DF DMT; Root disease; Stem decay		33	40
19	1	CTPU	Tractor	Yes			155	40
20	1	CTPU	Tractor	Yes	Protect larch regeneration patches		22	40

Unit	Priority	Treatment	Yarding	Underburn	Comments	Girdle Dwarf Mistletoe trees	Approx Acres	Target Canopy Cover (%)
21	1	CTP	Tractor		Boy Scout use		34	60
22	1	CTP	N/A		Reach from road		1	50
23	2	CTP	Tractor, lightly		Eightmile Campground, Riparian; DF DMT		25	60
30	3	CTP	Cable		DMT DF	Yes	25	40
31	2	PCTP	Non-commercial Mechanical		DMT in DF overstory	Yes	9	50
32	1	PCT	Non-commercial Mechanical				29	50
33	1	PCT	Non-commercial Mechanical		WL DMT	Yes	31	50
34	1	PCTU	Non-commercial Mechanical	Defer	DMT in overstory	Yes	40	50
35	1	PCT	Non-commercial Mechanical				10	50
36	3	PCTU		Yes			58	40
37	3	PCTP			DMT in DF overstory	Yes	13	50
41	2	Hand Thin	Handpile		Lower Eightmile Campground, Riparian; DF DMT		3	60
42	2	Hand Thin	Handpile		Riparian, adjacent to private lands		5	60
43	1	Hand Thin	Handpile	No	Riparian, adjacent to private lands; suitable Northern spotted owls		2	60
44	1	Hand Thin	Handpile		Riparian; DMT in WL, DF Overstory		2	60
45	1	Hand Thin	Handpile		Underhill Site, Archaeological site		24	60
51	1	Prune		Defer	Underburn in 3 to 5 years		25	n/a
52	3	Prune			Plant and Defer pruning five years		9	n/a

Unit	Priority	Treatment	Yarding	Underburn	Comments	Girdle Dwarf Mistletoe trees	Approx Acres	Target Canopy Cover (%)
53	2	Prune					22	n/a
54	2	Prune		Defer			40	n/a
55	2	Prune					2	n/a
60	3	Underburn		Yes			16	n/a
61	3	Underburn		Yes			118	n/a
62	3	Underburn		Yes			31	n/a
63	3	Underburn		Yes			59	n/a
64	3	Underburn		Yes			8	n/a
65	3	Underburn		Yes			19	n/a
67	3	Underburn		Yes			25	n/a

## APPENDIX 2: Design Criteria/Mitigation Measures for Proposed Action

The National Environmental Policy Act defines “mitigation” as avoiding, minimizing, rectifying, reducing, eliminating or compensating project impacts. The following Project Criteria/Mitigation Measures are an integral part of this project and would be carried out if the project is implemented. In most cases, the effects analysis in Chapter 3 is based on these Project Criteria/Mitigation Measures being implemented.

### Fuels:

1. Any mechanical slash piling would be done with a grapple piler/excavator. Grapple piles would be covered with plastic to facilitate consumption of piled fuels. Piles need to be 8-foot wide at base, 6-foot high as a minimum\*.
2. Hand piles would be constructed with enough fine fuels to allow for ignition during fall and winter months, and covered with plastic to facilitate consumption of piled fuels. Piles need to be 8-foot wide at base, 6-foot high as a minimum<sup>1</sup>.
3. Soil in mechanized piles would be minimized to facilitate efficient burning.

### Vegetation:

1. Patch openings would be created in root disease pockets. These openings would be planted with root disease resistant species native to the area.
2. Retained trees with a dwarf mistletoe rating of 2 or more would be girdled within unit boundaries.
3. Unit 21 would not be entered once summer camp starts at Camp Baldwin in June until summer camp ends in August. Operations in Unit 21 would be coordinated with the Boy Scouts.
4. Fuels will be removed from beneath legacy ponderosa pine before underburning.

### Roads:

1. Haul would be restricted to the normal operating season, unless weather conditions permit operating outside of this window.
2. Snowplowing would be restricted when a freeze/thaw condition is expected or when a saturated base and subgrade would result.
3. Snowplowing would not be allowed on Roads 44 and 4430 from December 15 to April 15 to allow for winter recreational use.
4. Snowplowing would not be allowed on Road 4460120 to minimize the effects to aquatic species and associated habitat.
5. The contractor or permittee would be responsible for snow removal in a manner which would protect roads and adjacent resources.
6. Rocking or other special surfacing and drainage measures may be necessary before the operator would be allowed to use the roads after snowplowing.
7. After snowplowing, snow berms shall be removed or breached to avoid accumulation or channelization of melt water on the road and prevent water concentration on erosive slopes

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<sup>1</sup> The Forest Service will meet an *average* width of 8-foot and height of 6-foot 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.

or soils. If the road surface is damaged, the contractor or permittee shall replace lost surface material with similar quality material and repair structures damaged in the operations, unless otherwise agreed to in writing.

Soil Resource:

1. All temporary roads, skid trails, and landings would be rehabilitated after project activities are completed in each unit.
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.

Riparian Areas:

1. No vegetation removal or manipulation would occur within 60 feet<sup>†</sup> of any perennial and 30 feet<sup>†</sup> of any intermittent streams, seeps, springs or wetlands. This would ensure current stream shading would remain unchanged and protect stream temperatures as well as reduce the likelihood of eroded material entering streams.
2. No mechanized equipment would be allowed within 100-feet<sup>†</sup> of perennial streams, seeps, springs or wetlands. Equipment that may be used in the Riparian Reserves is as follows: chainsaws, pruning shears, winch machinery, and slash-busters. The use of feller-buncher machinery is excluded in Riparian Reserves. This would reduce the chance of sediment delivery to surface water.
3. Fueling of gas-powered machinery would not occur within 150-feet of any live waters to maintain water quality.
4. Use erosion control measures (e.g., silt fence, native grass seeding) where de-vegetation may result in delivery of sediment to adjacent surface water. Soil scientists or hydrologists would assist in evaluation of sites to determine if treatment is necessary and the type of treatment needed to stabilize soils.
5. Locate new temporary roads and landings outside of Riparian Reserves.
6. New temporary roads would not exceed a total of 3 miles in the Billy Bob Planning Area.
7. Any felled trees which fall into the 60-foot “no touch” area of perennial and 30-foot “no touch” area of intermittent streams, seeps, springs or wetlands would be bucked at the “no touch” edge and only the portion of tree outside this area can be removed.
8. Low severity burns shall constitute the dominant type of controlled burn within the Riparian Reserve, resulting in a mosaic pattern of burned and unburned landscape.
9. Moderate-severity burns are permitted in no more than 20 percent of the riparian area to invigorate decadent willows, and other relevant deciduous species.
10. Ignition can occur anywhere in the riparian area as long as project design criteria are met.
11. Hand piling slash in Riparian Reserves is permitted.
12. Burning activities excluded in the Riparian Reserves are as follows: No mechanical piles, fire line construction, and chemical fire retardants.
13. Any mechanical slash piling would be done with a grapple piler.

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<sup>†</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.

**Wildlife:**

1. If a spotted owl activity center is located in the project area, a seasonal operating restriction (March 1- July 15) would be placed in the area impacted.
2. A seasonal operating restriction (restricting harvest and fuels treatment activities) for winter range would be implemented with this project from December 1 through April 1 for Units 1-9, 18-20, 33, 35, and 45.
3. Survey and Manage species found during 2007 surveys would have the location protected.

**Invasive Species:**

1. It is recommended that “pre-treatment” occur before any harvest activities are implemented along the 44, 4430, 4440, 4450, 4460, 4440-120, 4421 roads. The effects of treatment type (hand pulling, mechanical, and/or herbicide treatment) were analyzed in the Barlow Noxious Weed Environmental Assessment and are included in the final Mt. Hood National Forest Invasive Species Environmental Impact Statement.
2. In order to prevent any introduction of noxious weed and/or seeds onto National Forest System lands, the actions conducted or authorized by written permit by a purchaser/contractor (if operating outside the road prism) require the cleaning of all heavy equipment prior to entering National Forest System lands. Only construction and maintenance equipment and the equipment necessary to transport said equipment would be allowed to operate within the project area. All subsequent move-ins of equipment to the project area shall be treated in the same manner as the initial move-in. This requirement does not apply to service vehicles, water trucks, log trucks, pickups, cars, and/or similar vehicles.
3. The purchaser/contractor shall give the Forest Service at least 48 hours notice of when equipment is ready for inspection. Notification would include an agreed upon location where the equipment would be available for inspection by the Forest Service. Inspection would be required after every cleaning. The Forest Service shall approve the methods of cleaning and the locations for the cleaning.
4. The process for locating all skid trails and landings would be coordinated with a noxious weed specialist so as to insure these locations are not within any currently established noxious weed populations.
5. If at all possible schedule the implementation of work from infestation-free areas into infested areas rather than vice-versa.
6. 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.
7. Under no circumstances would non-native invasive plant species be used for revegetation.
8. If using straw, hay or mulch for restoration/revegetation in any areas, use only certified, weed-free materials.

**Recreation (Trails and Campgrounds):**

1. Trees harvested within the 50-feet of trails 459, 459A, and 683 would be felled directionally away from the trail. No trees would be felled over trails.
2. All brush piles, landings and skid trails would be located at least 100 feet from trails 459 and 459A unless blocked by topography from view.
3. All stumps within 100 feet of trails 459, 459A, and 683 would be cut to 6 inches in height or less.
4. Prescriptions would ensure that small islands of trees and shrubs would be interspersed along trails 459, 459A, and 683 to aid in holding visual quality.
5. The methods used to rehabilitate landings, skid trails and temporary roads would be designed to meet visual quality standards within foreground of both trail 459 and 459A, and modification on trail 683.
6. Retain at least 3 to 5 large trees per acre in the immediate foreground of trails 459 and 459A where stands contain suitable trees.
7. Ground disturbance and activity debris resulting from project activities would remain visually subordinate in the immediate foreground trails 459 and 459A.
8. All trees in campgrounds would be removed before Memorial Day or after Labor Day, unless removal is specifically approved by a recreation staff person.
9. Screening between campsites at Lower Eightmile and Upper Eightmile campgrounds would be maintained, where possible.
10. Trees would be left in a 100-foot-wide edge around the campgrounds, in order to prevent off-highway vehicle and vehicle traffic from entering or leaving the campgrounds via cross-country paths.

**Visual Quality:**

1. New landings, skid roads, and temporary roads should not be visible from Forest Road 44.
2. Any rehabilitation or road closure activities for skid trails, temporary roads and/or landings should not be visible from Forest Road 44.
3. All machine brush piles should be located at least 150 feet from Forest Road 44 and should be completely consumed when burned if visible from the road.
4. Hand piles should be located at least 100 feet from Forest Road 44 and should be completely consumed when burned if visible from the road.
5. All stumps within 150 feet of Forest Road 44 should be cut to less than 6 inches in height during felling operations.
6. Any trees less than 6 inches diameter within 100 feet of Forest Road 44 should be cut off at ground level.
7. Root wads, log chunks, rounds and other wood residue that does not appear natural should be placed in burn piles and consumed.
8. Any major ground disturbance visible from Highway 44 from project operations should be returned to natural grades while machinery is present.
9. Prescriptions would ensure that small islands of trees and shrubs would be interspersed in the foreground of Forest Road 44 to aid in holding visual quality. Plants left in the islands should be natural in appearance.
10. Prescribed burning should be designed to avoid scorching large trees in the foreground and browning out crowns of smaller live trees in the retention islands.



**Heritage Resource Sites:**

1. A 100-foot buffer zone for the exclusion of heavy machinery would be flagged around all designated heritage structural remains or significant designated cultural resource sites.
2. Prescribed burning may occur, but machine piling may not occur within the flagged buffer zones.
3. A 50-foot buffer zone for the exclusion of heavy machinery would be flagged on both sides of historic ditches.
4. All trees with insulator mountings would be avoided during harvest activities, unless otherwise specified by the archaeologist.