

BEAR SPRINGS PLANTATION THINNING

DECISION NOTICE And FINDING OF NO SIGNIFICANT IMPACT

USDA FOREST SERVICE
MT. HOOD NATIONAL FOREST
BARLOW AND HOOD RIVER RANGER DISTRICTS
WASCO COUNTY, OREGON
T4S-R8.5E; T4S-R9E; T4S-R10E; T5S-R08.5E; T5S-R09E;
T5S-R10E; and T5S-R11E; Willamette Meridian.

BACKGROUND

The Mt. Hood National Forest has prepared an environmental assessment (EA) for the Bear Springs Plantation Thinning Project. The decision, which is the Proposed Action, is to thin approximately 1,629 acres of second growth plantations with a post thinning underburn treatment on approximately 579 of those acres. The Bear Springs Plantation Thinning Project is located within the White River Tier 2 Key Watershed on the Mt. Hood National Forest in Wasco County, Oregon. Vegetation within the approximately 41,000 acre planning area includes mixed conifer forests, meadows, and open grassy slopes. Average annual precipitation ranges from 50 inches on the west side to 20 inches on the east side, occurring mostly during the winter months. Elevation ranges from 3,000 to 4,500 feet. The area supports a wide variety of human uses, including recreation, wood products, and grazing. The purpose of the large planning area is to address resource needs at a landscape level. All section (s.) number references are to sections of the EA unless specified otherwise. Acres and miles listed are approximate.

PURPOSE OF AND NEED FOR ACTION

The following four purposes of this project are derived from the Mt. Hood Forest Plan as amended:

- **Enhance riparian reserves (s.2.2.1)**
This action is needed because the condition of the riparian reserves within these plantations does not meet all of the current and future needs of associated aquatic and riparian resources.
- **Enhance diversity (s.2.2.2)**
This action is needed because these plantations lack certain elements of diversity. They do not have the mix of tree species that were present in the

original stand and they are relatively uniform in terms of tree size and spacing. There is a need for greater variability of vertical and horizontal stand structure. There is a need for more sunlight on the forest floor to create greater diversity of ground vegetation and to increase the quantity and palatability of forage plants.

- **Increase health and growth that results in larger wind-firm trees that are resilient to insects, disease and wildfire (s.2.2.3)**
This action is needed because these second-growth plantations are experiencing a slowing of growth due to overcrowding and some are experiencing suppression caused mortality.
- **Provide forest products consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies (s.2.2.4)**
This action is needed to supply forest products in a cost effective manner. There is a need to keep forests healthy and productive to sustainably provide forest products in the matrix in the future. Not only are forest products needed by society, but also the employment created is important to local and regional economies.

DECISION and RATIONALE

Based upon my review of the analysis and alternatives, **I have decided to implement Alternative B - Proposed Action (s.3.2)**. Design Criteria / Mitigation Measures that apply to this decision are included in Appendix 1 to this decision notice. No significant impacts were found that would require further mitigation. My decision includes:

- Thinning and harvest of wood fiber on approximately 1,629 acres of plantations;
- Post thinning underburn on approximately 579 acres;
- Use and repair / maintenance of 92.1 miles of system roads; and,
- Reopening 2.75 miles of old existing temporary or previously decommissioned roads and constructing 0.08 miles of new temporary roads, which will be decommissioned upon project completion.

I have selected the Proposed Action alternative because it fully accomplishes the purpose and need discussed in the EA (s.2.2) in the following ways:

- **Riparian Reserves** – *The thinning of plantations in riparian reserves will accelerate the development of mature and late-successional stand conditions. There will be no-touch buffers on each side of streams. Refer to s.2.2.1, s.3.2, s.4.1.1, and s.4.5.3.*

- **Diversity** – *Thinning will improve diversity in all units through variable spaced thinning. Diversity and variability will be introduced in several ways including varying the spacing of leave trees within units and between units, and creating small skips and gaps. Refer to s.2.2.2, s.3.2, and s.4.1.2.*
- **Health and Growth** – *The plantations are dense and experiencing a slowing of growth due to overcrowding. Thinning will increase health and vigor and enhance growth that results in larger wind firm trees. Refer to s.2.2.3 and s.4.1.1.*
- **Forest Products** – *The project will provide forest products consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies now and in the future. It will also result in vigorously growing stands that would be capable of providing future forest products. Refer to s.2.2.4 and s.4.1.1.*

I recognize that the public has raised concern about sedimentation (s.2.4.1). Specifically, the public is concerned about increased sedimentation caused by reopening previously decommissioned and temporary roads and the construction of new temporary roads. I have decided that the roads used for this project are appropriate because they provide efficient access to the units, facilitate appropriate logging systems and result in minimal resource impact (s. 3.2.5, s. 4.4.3, s.4.5.3, and s.4.13.2). Additionally, the project's design criteria / mitigation measures (Appendix 1) have resolved any potential impacts to my satisfaction.

The old decommissioned roads were the primary access to the plantations that are now considered for thinning. Each road was examined to evaluate how intensively it was decommissioned and if it was within the riparian reserves to determine whether it would be suitable to reuse it for the current restoration thinning proposal. Even though all of the proposed units were clear cut logged before using the now decommissioned roads, there are limited cases where it is not desirable to use the same roads, landings or logging methods used before.

I have decided to reuse approximately 1.59 miles of previously decommissioned roads because they are in a suitable location with no stream crossings and minimal impacts to fish, water quality and other resources, (s.3.2.5, s.4.4.3, s.4.5.3, and s.4.13.2). I have decided to not add these roads back to the Forest transportation system, but to treat them as temporary roads. After use, the roads will be decommissioned and restored to a hydrologically stable condition. The roads will be bermed at the entrance, water barred, decompacted and roughened with the jaws of a loader or excavator, and debris such as rootwads, slash, logs or boulders are placed near the entrance and along the first portion of the road (s.3.2.5.2).

I have also decided to reuse approximately 1.16 miles of existing temporary roads. These roads will also be decommissioned upon project completion. I have decided to use these existing temporary roads because the road alignments are in suitable locations where no

stream crossing culverts would need to be installed to gain access to conduct restoration thinning, and there would be little effect to fish, water quality and other resources, (s.4.4.3, s.4.5.3, s.4.6.5).

I have decided to construct approximately 0.08 miles of new temporary roads and restore them upon project completion. Because the new temporary roads are located on gently sloping land with no stream crossing culverts needed, I believe they would provide the access necessary to conduct restoration thinning with little to no effect to fish, water quality and other resources (s.4.4.3, s.4.5.3, s.4.6.5).

The concerns raised by the public about lack of woody debris and snags have been resolved to my satisfaction (s.2.4.1). Some feel there is an excessive emphasis on the health of trees and would like greater attention paid to the value of dead and down trees; healthy ecosystems should have an abundance of large decaying live trees, large snags and coarse woody debris all of which are lacking in plantations. Some suggest that because large snags and large coarse woody debris are not present in sufficient quantities in the stands proposed for thinning that we should: do nothing and allow the inevitable natural mortality to create dead and down wood; or inoculate trees with native fungi to create snags and downed wood; or create “extensive” untreated skips.

I have considered these options and decided to select the proposed action. Snag and woody debris are discussed in s.4.1, s.4.5, s.4.6, and s.4.7. The proposed action includes variable density thinning with skips and gaps and the retention of down wood, snags and trees with the elements of wood decay (s.3.2.1). Long-term recruitment of snags and down logs will be emphasized in skips, riparian protection buffers and across a broad landscape outside of units. Skips and riparian protection buffers would have processes similar to those described for the No Action Alternative where tree mortality would create an abundance of snags and down wood (s.4.7.2.4). Thinning does remove the smaller trees in a stand; however, these are most likely the trees that would otherwise die from suppression mortality if no action were taken. The proposed action provides a mix of some small snags and down wood now through the use of skips combined with thinning to create variability and larger trees (s.4.1). I have decided that the proposed action provides a better mix of benefits and outputs while providing sufficient quantities of dead and down wood.

Description of Other Alternatives and Reasons for Non Selection

- **Alternative A** is the No Action Alternative (s.3.1).

Alternative A was not selected because it would not provide any of the benefits described in the purpose and need. If no action is taken in riparian reserves, plantations would be very slow in their acquisition of late-successional characteristics (s.2.2.1, s.4.1.1.2, s. 4.5.3, and s.4.6.5). If no action is taken, plantations would become overcrowded resulting in trees with reduced vigor, increased mortality and increased wind damage susceptibility (s.2.2.3 and s.4.1.1.2). Trees would stagnate and stay relatively small resulting in a period of low structural diversity (s.2.2.2 and

s.4.1.2.2). If no action is taken, we would forgo the opportunity to provide any forest products consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies (s.2.2.4, and s.4.1.1.1)

- **Alternatives Considered but Eliminated from Detailed Study** (s.3.3)

An alternative was considered that limited or completely restricted the construction of temporary roads, which included the reuse of previously decommissioned roads for the project. To facilitate this, helicopter logging would be necessary to access units with limited road access or the units would need to be dropped from the project all together. With the current timber market, a project which includes helicopter logging, because it is a more expensive operation, is not likely to sell when it is put up for bid in a timber sale. If the project cannot be implemented, none of the project objectives can be met. If the units were dropped they would remain in a condition that is contrary to the desired future condition and the purpose and need of this project would not be met, therefore, this alternative was not carried forward. To address both public concerns as well as sediment issues, temporary road usage was kept to a minimum. No new permanent roads are being proposed in the action alternative and almost all of the temporary roads are being placed on compacted surfaces from historic temporary and previously decommissioned roads (s.3.2.5.2).

PUBLIC INVOLVEMENT

A scoping process to request public input for this project was conducted. A letter describing the proposed project and requesting comments was sent out on March 12, 2010. The Forest publishes a schedule of proposed actions (SOPA) quarterly. The project first appeared in January 2010, and in subsequent issues. A legal notice in *The Oregonian* was published announcing the 30-day comment period (the comment period ended on August 20, 2010). Responses to substantive comments are included in Appendix B of the EA. The Forest Service received three responses during the initial scoping period from Bark, Oregon Wild, and one individual. Both Bark and Oregon Wild provided comments during the public comment period as well as several other individuals. Responses to substantive comments are found in Appendix B of the EA.

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 s.4.0 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 will have neither a significant beneficial or adverse impact because the acres treated are a small percentage of comparable acres across the landscape, and the anticipated effects are similar to those in past plantation thinning projects, which have not proven to cause significant impacts. Project effects are limited to treatment areas and in some cases the planning area, except smoke which is transported out of the treated areas. The project changes the current condition by moving forest conditions and to a lesser degree the fuel conditions toward the natural conditions found historically in the area. 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 plantation thinning activities are not generally known to negatively impact public health and safety (s.4.15). Burning of activity fuels will be conducted according to the operation guidance for the Oregon Smoke Management Program (s.4.3). The impact is not significant because the area treated is a small component of the much larger planning area representing roughly 4% of the area.

3. The unique characteristics of the geographic area:

No prime farmlands, parklands, wild and scenic rivers, Wilderness, inventoried roadless areas or ecologically critical areas overlap within the treatment areas proposed. Historic and cultural resources have been protected by project design, and riparian areas including wetlands and streams have been buffered (see Appendix 1 for project Design Criteria/Mitigation Measures). Essential fish habitat will not be adversely affected (s.4.6.3). Land use allocations that are included within the proposed treatment areas include Riparian Reserves, Matrix, Viewsheds, Pileated Woodpecker/Pine Martin Habitat Areas, General Riparian, Deer and Elk Winter Range and Timber Emphasis (s.2.2.7).

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 Bear Springs Plantation Thinning 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 20 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 (s.4.0).

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 Design Criteria/Mitigation Measures that will be implemented as part of this project (see Appendix 1). 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. Heritage Resource Reports (2010/060601/0010 and 2010/060606/0017) documented the survey methodology, findings, and recommendations for archaeological resources associated with the activities proposed for the Bear Springs Plantation Thinning EA. This report concluded with findings of **no effect** for expected impacts to archaeological resources.

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. The tree removal activities on 118 acres which degrade dispersal habitat and 26 acres which remove dispersal habitat **may affect and are not likely to adversely affect spotted owls** (s.4.7.2.1). No habitat will be removed from historic owl centers. The effects to spotted owls from this project were consulted on with the U.S. Fish and Wildlife Service through formal consultation for fiscal years 2007 and 2008 (FWS Reference Number 1-7-06-F-0179). This project was not completed within the timeframe specified in the consultation and therefore a letter extending the consultation date to 2012 was sent from the Forest Service to the U.S. Fish and Wildlife Service on July 15, 2010.

The project **may impact individuals or habitat** of redband trout, Columbia dusksnail, and Scott's aptanian caddisfly. No other aquatic species listed as threatened, endangered, or proposed will be adversely affected by this project (s.4.6.7). 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 (s.4.6.3 and s.4.6.7). There are no proposed, threatened, or endangered species of plants, lichens or fungi known to exist in the project area. As such, formal consultation was not required for aquatic or botanical species (s.4.6.7 and s.4.8.2).

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 and the Forest Service NEPA handbook. The project is consistent with the **National Forest Management Act** regulations for vegetative management (s.4.1). 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 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.

The project 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 (USDA and USDI, 2001). Surveys for **wildlife and botanical species** were not required for this project as there is no suitable habitat within harvest areas (s.4.7.1.3, s.4.8.2). Surveys for **aquatic species** were not required as projects in stands younger than 80 years old are exempted by the 2006 court injunction in Northwest Ecosystem Alliance v. Rey (s.4.6.2.3). For the terrestrial and aquatic species known to be present within the planning area, I have decided that the appropriate measures as described in the Project Design Criteria/Mitigation Measures (see Appendix 1) will be applied.

This project uses the **Regional Forester's Special Status Species** lists for aquatic, botanical and wildlife species dated January 24, 2008. For sensitive aquatic species, the action will have **no impact** on barren juga, basalt juga, or purple-lipped juga. The project **may impact individuals or habitat** of redband trout, Columbia dusksnail, and Scott's aptanian caddisfly (s.4.6.7). As no suitable habitat was found in the proposed units there will be **no impact** to sensitive plants or other botanical management species (s.4.8.2).

The action 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** effect for the Bald Eagle and Wolverine (s.4.7.2.2). These are the only Forest Service, Region 6 sensitive species found within the project area.

I have considered the effects to **management indicator species** (MIS) as disclosed in the EA (s. 4.7.2.3). Wildlife MIS include mule/black-tailed deer, rocky mountain elk, pine marten, Pileated woodpecker, western gray squirrel, wild turkey and snag and down log associated species.

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 (s.4.5.5). Also, this project will meet **Clean Water Act** standards (s.4.5.1). A section of Clear Creek from river mile 0 to river mile 15.1 is listed as Category 5 on the 2004/2006 State of Oregon 303(d) list of impaired water bodies for summer rearing water temperatures that exceed a 7-day average maximum of 17.8°C. However, the temperature standard for the only Category 5 listed stream segment on National Forest land is being met within the planning area (s.4.5.1).

By considering the prevention of invasive plant introduction, establishment and spread of invasive plants (s.4.9), the planning process is consistent with the Pacific Northwest **Invasive Plant** Program Preventing and Managing Invasive Plants Record of Decision issued in 2005. Project Design Criteria/Mitigation Measures are included to prevent the spread and establishment of invasive plants (see Appendix 1).

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 will continue to comply with the requirements of the **Oregon Smoke Management Plan**, which is administered by the Oregon Department of Forestry (s.4.3).

ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES

This decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215. Any individual or organization that submitted comments or expressed interest during the comment period may appeal. Any appeal of this decision must be in writing and fully consistent with the content requirements described in 36 CFR 215.14. The Appeal Deciding Officer is the Regional Forester. An appeal should be addressed to the Regional Forester at any of the following addresses. For postal delivery, mail to: Regional Forester, Appeal Deciding Officer, USDA Forest Service, PO Box 3623, Portland, OR 97208. The street location for those submitting hand-delivered appeals is 333 SW First Ave., Portland, OR. The office hours are 8-4:30 M-F, excluding holidays.

For fax, send to 503-808-2339. Appeal may be emailed to: appeals-pacificnorthwest-regional-office@fs.fed.us. Electronic appeals must be submitted as part of the actual e-mail message, or as an attachment in Microsoft Word (.doc), rich text format (.rtf), or portable document format (.pdf) only. E-mails submitted to email addresses other than the one listed above, or in formats other than those listed, or containing viruses, will be rejected. It is the responsibility of the appellant to confirm receipt of appeals submitted by electronic mail.

The Appeal, including attachments, must be postmarked or received by the Appeal Deciding Officer within 45 days of the date legal notice of this decision was published in *The Oregonian*. For further information regarding these appeal procedures, contact the Forest Environmental Coordinator Michelle Lombardo at 503-668-1796.

PROJECT IMPLEMENTATION

Implementation of this decision may occur on, but not before, 5 business days from the close of the 45-day appeal filing period described above. If an appeal is filed, implementation may not occur for 15 business days following the date of appeal disposition (36 CFR 215.10).

The EA can be downloaded from the Forest web site at <http://www.fs.fed.us/r6/mthood> in the Projects & Plans section.

CONTACT INFORMATION

For further information contact Andrew Tierney, Barlow Ranger Station, 780 NE Court Street, Dufur, OR 97021. Phone: (541) 467-5103 Email: atierney@fs.fed.us

APPENDIX 1

DESIGN CRITERIA/MITIGATION MEASURES

The National Environmental Policy Act defines “mitigation” as avoiding, minimizing, and rectifying, reducing, eliminating or compensating project impacts. The following design criteria and mitigation measures are an integral part of this project and would be carried out if the project is implemented.

Fuels

1. Any mechanical slash piling would 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. Grapple piles would be covered with water-resistant material meeting clean air standards, to facilitate consumption of piled fuels. Piles need to be 8-feet wide at base, 6-feet high as a minimum. An allowance for a small deviation from the stated dimensions would be made as long as this deviation does not jeopardize meeting any other stated goals.
2. Hand piles would 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 at base, 6-feet high as a minimum. An allowance for a small deviation from the stated dimensions would be made as long as this deviation does not jeopardize meeting any other stated goals.
3. Piles should be as compact and free of dirt as possible, and higher than they are wide.

Heritage

1. A 30-foot buffer zone for the exclusion of heavy machinery would be flagged around all cultural remains on significant heritage resource sites.
2. All trees with insulator mountings would be avoided during harvest activities, unless otherwise specified by the archaeologist.

Invasive

1. If possible, schedule implementation of work from infestation-free areas into infested areas rather than vice-versa.
2. Incorporate the standard contract provision that require cleaning of equipment.
3. The process for locating all new skid trails and landing locations would be coordinated with a noxious weed specialist 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.

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.
5. If using straw, hay or mulch for restoration/revegetation in any areas, use only certified, weed-free materials.
6. Reforestation and restoration efforts should limit use of container stock or other practices where soils or other growing mediums are brought into the planning area.
7. Create a 3-5 year implementation plan for prescribed fire in areas that are dominated by invasive non-native grasses and noxious weeds. Include collection of fire tolerant perennial native bunch grasses for seed increase contract.
8. 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.
9. Sale Administrator would need to coordinate with weed treatment COR when and where hauling will occur for safety.
10. No underburning would occur on treated sites within one year of herbicide treatment.

Recreation/Visuals

1. No trees would be harvested within 50 feet of a designated trail system.
2. All trees harvested within 100 feet of trails would be felled directionally away from the trails.
3. All trails and campgrounds would be kept open for weekend use.
4. All mechanical brush piles, landings, and skid trails would be located at least 100 feet from trails. Hand piles would be located at least 50 feet from trails.
5. All stumps within 50 feet of trails would be cut to 6-inches in height or less. All stumps from 50 to 100 feet from trails would be cut with the angle away from the trail.
6. All brush piles and landings would be located so they are not visible from Oregon Highway 216, and Forest Development Roads 4200 and 4800. If brush piles and landings cannot be hidden from view, then the sale administrator will work with the recreation staff officer for their placement.
7. All stumps within 100 feet of Oregon Highway 216 and Forest Development Roads 4200 and 4800 would be cut to 6-inches in height or less.

8. Stumps within the immediate foreground of Oregon Highway 216 and Forest Development Roads 4200 and 4800 would be covered with duff or dirt.
9. The methods used to rehabilitate landings, skid trails and temporary roads would be designed to meet VQO in the Foreground for Oregon Highway 216 and Forest Development Roads 4200 and 4800 unless blocked from view by topography or other features.
10. Ground disturbance and activity debris resulting from project activities would remain visually subordinate in the immediate foreground for Oregon Highway 216, the White River Watershed, and Forest Development Roads 4200 and 4800.
11. Sale Administrator will coordinate road closure signage with recreation personnel to lessen impacts to OHV users within the McCubbins Gulch OHV area. No weekend haul would be permitted.
12. Snowplowing for winter hauling would disrupt winter recreation within the primary snowmobile routes along Forest Development Roads 4800, 4300, 4200, and the 2610 road near Frog Lake.
 - a. Large winter events frequently occur within the Frog Lake area and the 4200 road. Winter hauling would be prohibited on Forest Roads 4200 and the first 3.0 miles of Forest Road 2610 from the Frog Lake Snow Park. This includes secondary roads associated with Forest Road 2610 in this area.
 - b. For the remaining snowmobile routes, any winter hauling and associated plowing would be restricted to either the 4800 road or the 4300 road and should not affect both roads simultaneously or within the same season. If only one road is affected, winter recreational opportunities would still be provided on the unaffected road.
 - c. Public notice of affected snowmobile routes shall be published in regional and local newspapers at least two weeks in advance of plowing.
 - d. Key representatives of snowmobile organizations should be informed of affected snowmobile routes at least two weeks in advance.
13. Snowplowing for winter hauling will not be permitted on the 4200-240 road.
14. All trails will be denoted as Permanent Improvements (PIs) on project maps.

Aquatic

1. No ground based mechanized equipment such as tractors or skidders would be allowed within 100 feet¹ of streams, seeps, springs or wetlands. This would reduce the chance of sediment delivery to surface water.
2. No vegetation removal or manipulation, or hand piling slash would occur within 60 feet¹ of any perennial and 30 feet¹ of any intermittent streams, seeps, springs or wetlands. This would ensure current stream shading would remain unchanged and

¹ The Forest Service would 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 would be made as long as this deviation doesn't jeopardize meeting the above stated goals.

- protect stream temperatures as well as reduce the likelihood of eroded material entering streams.
3. Fueling of gas-powered machinery would not occur within 150 feet of any live waters to maintain water quality. Each fueling area shall have a USFS approved spill kit on site.
 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. Use of existing facilities within Riparian Reserves may be allowed if erosion potential and sedimentation concerns can be sufficiently mitigated as determined by a qualified Soil Scientist or Hydrologist. All temporary roads and landings would be decommissioned immediately after fuel treatments are completed.
 6. Any felled trees which fall into the 60 foot¹ vegetative buffer area of perennial streams, seeps and springs and 30 foot¹ vegetative buffer area of intermittent streams, seeps, springs or wetlands would be bucked at the vegetative buffer edge and only the portion of tree outside these areas can be removed.
 7. Low severity burns should constitute the dominant type of controlled burn within the Riparian Reserve, resulting in a mosaic pattern of burned and unburned landscape.
 8. Moderate-severity burns are permitted in no more than 20% of the Riparian Reserves to invigorate desirable deciduous species.
 9. Fire ignition can occur anywhere in the Riparian Reserve outside the undisturbed vegetative buffer as long as project design criteria are met.
 10. Hand piling slash in Riparian Reserves is permitted up to the 60 foot undisturbed vegetative buffer or the 30 foot undisturbed vegetative buffer boundary or the actual primary shade zone.
 11. Burning activities excluded in the Riparian Reserves are as follows: No mechanical piles, mechanical fire line construction (eg. dozer, small tractor etc.), and chemical fire retardants. Fireline construction is defined to mean activities that result in exposure of bare mineral soil. Hand fireline construction should be minimized within the Riparian Reserve and wet line or black line is preferred. An exception to this would be situations where fireline is needed to control burn intensity and spread due to unforeseen circumstances. In these situations, there would be an emphasis to mitigate any potential for sedimentation to streams. Firelines will be water-barred before October 1 in the same year they were constructed.
 12. Hauling is not allowed when conditions exist (e.g. during intense or prolonged rainfall) that may cause generation of road related runoff to streams.
 13. Timber transport is allowed outside the Normal Operating Season (Oct 30 to April 15) on aggregate surface roads if the following criteria are met:
 - a. Aggregate surface haul routes must not cross stream segments listed for sediment or cross other streams that are w/in 1,000 feet of stream segments listed for sediment. The haul route must not be closer than 500 feet from stream segments listed for sediment at any given point.

- b. Haul routes must be inspected weekly, or more frequently if weather conditions warrant. Inspections will focus on road surface condition, drainage maintenance, and sources of soil erosion and sediment delivery to streams.
 - c. Sediment traps will be inspected weekly during the wet season and entrained soil would be removed when the traps have filled to 3/4 capacity. Dispose of these materials in a stable site which is not hydrologically connected to any stream.
14. Logging activities outside the Normal Operating Season will not be allowed in Riparian Reserves.

Roads

1. Snowplowing would be restricted when a freeze/thaw condition is expected or when a saturated base and subgrade would result.
2. The contractor or permittee would be responsible for snow removal in a manner which would protect roads and adjacent resources.
3. Rocking or other special surfacing and drainage measures may be necessary before the operator would be allowed to use the roads after snowplowing.
4. After snowplowing, snow berms should be removed or breached to avoid accumulation or channelization of melt water on the road and prevent water concentration on erosive slopes 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.
5. Haul outside of the Normal Operating Season will have an adjusted maintenance rate to collect the Commensurate Use during this period. In accordance with the Mt Hood National Forest Commensurate Share policy the Traffic Generated portion of the maintenance rate will be increased to collect the Commensurate Share during this period.
6. All signing requirements on roads open for public use on the Forest will meet Manual of Uniform Traffic Control Devices (MUTCD) standards. Some roads accessing State and County highways may require additional signing to warn traffic of trucks entering onto or across the highway.
7. National Forest Systems roads that is open to the public that have asphalt or bituminous surface treatment for surfacing will be keep free of materials from the travel way that will be hazardous to safe travel. This includes mineral soil, rock, limbs, bark, chips or any material from the operation.
8. Steel Tracked equipment shall not be operated on roads that have asphalt or bituminous surface treatment for surfacing. If a suitable place to off load and load equipment (gravel or native surfaced areas) is not available, then off loading on asphalt or bituminous surface treatment may be approved if mating materials are provided to protect the surface.
9. Temporary roads and landing located off National Forest Systems roads that have crushed rock, asphalt or bituminous surface treatment for surfacing will have ¾ inch dense graded crushed rock placed at the approach to prevent contamination of surface rock with mineral soil. On asphalt or bituminous surface treatments the

approach flares shall be wide enough to accommodate the off tracking of the hauling vehicles to reduce edge breaking of the surfacing. During periods when run off from rain can be expected temporary roads and landing that block ditch lines must provide drainage.

10. On crushed rock surfaced roads mineral soil contamination will reduce the load bearing capability of the existing rock. Contaminated areas will be repaired with specified crushed rock.
11. Temporary roads and landing located off National Forest Systems roads that are open to public travel will be located for safe site and stopping distance using Federal Highway standards for low volume rural roads.
12. The Mt. Hood National Forest Transportation System Management Road Rules Document dated January 1992 will apply to this project.

Soil

1. All skid trails would be rehabilitated immediately after harvest activities. Landings and temporary roads normally would 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 would occur to prevent unauthorized use.
2. Ground-based harvest systems should not be used on slopes greater than 30 percent to avoid detrimental soil and/or watershed impacts.
3. If a proposal to implement winter logging is presented, the following should be considered by the line officer 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 should 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. Because the margin of difference between not detrimental and detrimental soil damage can 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 administration and soil scientist
 - c. Equipment normally expected to traverse the forest, such as feller bunchers, track mounted shears, etc., should 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. Due to higher PSI's than track mounted equipment, no rubber tired skidders should be used even on skid trails once soils become fully saturated (approach their liquid limit)

Vegetation

1. Patch opening size needs to be sufficient to provide for conditions suitable for early seral species establishment and growth (normally at least 1-acre in size). Generally,

patch size should not exceed two acres. However, there may be instances where this would be allowed to address root disease issues. In these instances, the patches would be of irregular shape (with scattered retention pockets) and of limited distribution/number within the unit.

Wildlife

1. Known northern spotted owl core areas would be protected through the implementation of seasonal operation restrictions (March 1 thru July 15) for units 1, 2, 40, 41. In the event that a new activity center is located during the period of the contract, seasonal operating restrictions would be implemented in units that are within the 65 yard disruption distance.
2. No underburning may take place within 0.25 miles of a spotted owl core area between March 1 and July 15. The following units are within 0.25 miles of a spotted owl core area: 1, 2, 6, 26, 39, 40, 41, 42, 50, 51, 60, 61, 62, 74, 90.
3. A seasonal operating restriction for winter range would be implemented from December 1 to April 1 for units 54, 104, 106
4. A seasonal closure of December 1 through April 1 would apply to portions of haul roads within deer and elk winter range (B10 land use allocation).
5. No hauling would take place between sunset and sunrise.
6. All downed logs and non-hazardous snags would be retained whenever possible.
7. Canopy closure shall remain above 50% in units 6,8,10,12,13, 18, 19, and 20

Range

1. Incorporate the standard contract clauses for protecting “Existing Range Improvements”.
The range conservationist should be given advanced notification from the sale administrator before log haul occurs to limit potential conflicts with permittees.