

DECISION NOTICE
And
FINDING OF NO SIGNIFICANT IMPACT

ORCHARD

USDA FOREST SERVICE
MT. HOOD NATIONAL FOREST
CLACKAMAS COUNTY, OREGON
CLACKAMAS RIVER RANGER DISTRICT

An Environmental Assessment (EA) has been prepared for the Orchard planning area. This area is located in T.5 S., R.5 E., Willamette Meridian. The EA evaluates a forest management proposal including the commercial thinning of second-growth stands of trees within the South Fork Clackamas River watershed.

DECISION and RATIONALE

I have decided to select Alternative B. Alternative B will meet the purpose and need discussed in the EA (page 5) by implementing the following:

- Approximately 230 acres of second-growth stands in the matrix will be commercially thinned, improving stand health and vigor and enhancing tree growth that results in larger wind-firm trees. Alternative B would provide wood products to meet the social needs described in the Northwest Forest Plan. It will result in constructing approximately 2.2 miles of temporary roads, which will be obliterated and revegetated upon completion of the project.
- Approximately 16 acres of small diameter, second-growth stands, in the dry upland portion of the riparian reserves will be commercially thinned. This will enhance riparian conditions by improving stand health and vigor and enhancing tree growth that results in larger wind-firm trees. Structural diversity will be improved and larger trees would provide large woody debris over time as trees fall.
- Approximately 4 acres will be regenerated using a combination of mechanical site preparation and tree planting. This 4-acre area is a second-growth stand that contains very small trees that are diseased and growing very slowly. The area will be converted to a young stand with vigorous growth.
- Forest Road 4500-242 (0.75 mile) will be obliterated and revegetated upon completion of the project, which will result in increased forage levels and increased solitude in the Late Successional Reserve (LSR).

It is my decision to select Alternative B over the other alternatives considered for the following reasons:

- Alternative A, the no-action alternative, was not selected because it would not provide any of the benefits described in the purpose and need (it would not improve health, vigor, or wind-

firmness), and it would not provide any timber outputs to meet the social goals of the Northwest Forest Plan.

No action would result in continued reduction of stand health and vigor. As trees grow in an overcrowded condition, they lose live crown as the lower branches are shaded and die. The trees remain slender as they put their energies into height growth at the expense of trunk and root strength. Trees grown in overcrowded conditions are at risk of blowing down or breaking under snow load, and are more susceptible to diseases and insects (EA page 5, EA appendix page A-7). I am choosing action over no-action because thinning these overcrowded stands will provide more sunlight, moisture, and soil nutrients for improved trunk and root strength. These thinned stands will be less susceptible to disease, insects, or wind damage and trees will quickly grow to a larger size. Thinning these overcrowded stands will provide wood products and helps move this area toward the desired future condition (EA page 3), while no-action would not. Alternative B will convert 4 acres (by site prep and planting) of diseased and stagnated small trees (non-commercial size) to a young vigorous stand with growth commensurate with the site's potential. Alternative B will also obliterate a road in the LSR to increase forage and reduce harassment to wildlife.

I have chosen Alternative B over the no-action alternative, because Alternative B accomplishes the important objectives discussed above while creating minimal adverse impact to the environment. The adverse impacts are discussed below in the section summarizing how Alternative B responds to issues raised by the public, and in the Finding of No Significant Impact section.

- Alternative C is responsive to issue 1, which is a concern about the effect road construction could have on water quality. It would meet the purpose and need similar to alternative B but would build no roads. Helicopters would be used where necessary to remove logs. Approximately 25% of the acreage would be logged by ground based or skyline systems from existing roads, and 75% would be logged with helicopters.

Helicopter is a very high cost logging system and the prescribed thinning would remove relatively low volume per acre, and the trees removed would be relatively small and of low value (EA page 22). Alternative C would result in a below-cost timber sale. A below-cost timber sale is one where the cost of the project exceeds the value of the timber. Alternative B is an above-cost timber sale, (Alt. B has a benefit/cost ratio of 1.2 compared to 0.36 for Alt. C, EA page 22). With Alternative C there would be insufficient funds to cover the cost of the road obliteration, the 4 acres of mechanical site preparation and tree planting, as well as other forest enhancement projects such as the girdling of trees for snag habitat (EA page 22, Appendix 2, page I-11). I have chosen Alternative B over Alternative C because the risk of sedimentation from building temporary roads on gentle slopes with no stream crossings is very minimal with Alternative B, while the cost of helicopters with Alternative C is not warranted to achieve a very minimal reduction of sedimentation risk (EA page 17).

- Alternative D is responsive to issue 2, which is a concern about the effect that logging in the riparian reserve could have on water quality. Alternative D would meet the purpose and need and build the same roads as described in Alternative B, except that the trees in the riparian reserves would be girdled and left in place. Alternative D would target the same tree quantity and size as Alternative B except that they would be girdled instead of harvested.

There is a potential risk of insect infestation associated with girdling the number of trees needed to achieve the purpose and need (EA page 17). With Alternative B, there is less risk of insect infestation.

In Alternative B, the timber sale purchaser would cut the trees, and the cost of achieving the thinning is born by the value of the timber removed. However with Alternative D, the cost of girdling (approx. \$72,000) would have to come from other limited and uncertain funding sources (EA appendix 2, page I-18). I am choosing Alternative B over D, because it accomplishes the objectives without additional cost, with less risk to insect infestation, and without harm to water quality (EA pages 16-20).

- Alternative E is responsive to issue 3, which is a concern about the effect road construction could have on the LSR. It would meet the purpose and need similar to Alternative B, except that instead of building 200 feet of temporary road through the LSR, it would build approximately 1900 feet of temporary road outside the LSR (for a total of 2.5 miles of temporary road construction). The road alignments are shown on EA page 14.

There are currently no roads that access unit 1. During the early stages of planning this project, four options were examined for access to unit 1. One option was to use helicopters as displayed with Alternative C. Another option was to build a ridge top temporary road that would be outside the LSR but would parallel the LSR boundary. This ridge top option was rejected as infeasible due to excessive gradients (too steep for log trucks and other vehicles). Another route is displayed in Alternative B through a portion of the LSR.

Alternative E considered another potential route. This route would avoid the LSR on a feasible gradient, but would have to traverse land with steep side slopes. This road alignment would cost more than the alignment in Alternative B, and would pose an increase in the risk of sedimentation (EA page 17, appendix 2 pages I-3 and I-23).

I have chosen Alternative B over E, because effects to late-successional species and the LSR are neutral with Alternative B, compared to the increased sediment risk and extra cost associated with Alternative E (EA pages 17 and 21).

- Comments were received that suggested I consider an alternative that would obliterate and restore road 4500-242, but not allow any commercial timber harvest. This alternative is within the range of alternatives discussed above because I have the discretion to approve the road obliteration project (a component of Alternatives B thru E) and not approve the commercial timber harvest (Alternative A). I am not selecting this option for most of the same reasons discussed under Alternative A above because it is similar to Alternative A in most respects. Alternative B also provides a mechanism to fund the road obliteration while this proposed option would not.

Summary of how Alternative B has responded to the issues raised by the public:

I considered the substantive comments that were raised. The EA was available for a 30-day public comment period that ended on July 24, 2002. The responses to the comments received are contained in Appendix 1 of the EA.

- Water Quality and Fisheries - Even though the proposed actions have been designed to meet current standards, there is still a concern about ground disturbing activities including road construction in matrix and logging in riparian reserves. This project is consistent with the objectives of the Aquatic Conservation Strategy (ACS) of the Northwest Forest Plan. The analysis shows (EA pages 16 to 20) that the roads pose minimal risk because they do not cross any streams, and are on stable, dry, gently sloping terrain. The location, road design, seasonal restrictions, and obliteration after project completion, combine to reduce the risk of impacting water quality and fisheries. Logging in the riparian reserve will be done with skyline logging systems, seasonal restrictions, and no-cut buffers that also reduce risk. The project will result in long-term improvements to forest health, wind firmness, and a watershed that provides clean water.
- Late-Successional Reserves (LSR) - There is a concern about the impact the road built through the LSR could have on habitat for late-successional species. The temporary road constructed in the LSR (approximately 200 feet long) passes through a second-growth stand that has already been commercially thinned and functions as dispersal habitat for the Northern Spotted Owl (EA page 21). The road does not pass through late-successional habitat, it will be kept as narrow as possible, and the trees that will need to be cut will be left for coarse woody debris. The second-growth stand's function as dispersal habitat will not be altered. The new road (plus ¾ mile of existing road that lead up to this new road, also in the LSR) will be obliterated and revegetated after project completion. A seasonal restriction is included to reduce disturbance effects. The analysis shows that this road will have a neutral affect to the LSR (EA appendix 2, page G-2).
- Economic Viability - There is a concern that the proposed timber harvest would not be economically viable. As proposed, the Orchard sale is an economically viable timber sale (EA page 22).
- Coarse Woody Debris – There is a concern that due to the high levels of existing Coarse Woody Debris, too much would be disturbed during logging. Design criteria for all action alternatives adequately protect existing woody debris (EA page 23).
- Wind - There is a concern that thinning may increase the potential for trees to be blown down by wind. The silvicultural section in the appendix (EA Appendix 2, pages A-2 thru A-13), contains information about past wind history and the risks associated with thinning. The thinning has been designed to minimize the risk of wind-thrown trees by retaining trees with the largest diameters, leaving no-cut buffers along adjacent plantations, and feathering the tree density in certain areas. As stated in the purpose and need, thinning is designed to provide long-term health and stability. Thinning will give the trees a chance to develop greater trunk and root strength and in the long-term will result in larger healthier trees that can withstand wind (EA page 5, Appendix 1, comment #1).

FINDING OF NO SIGNIFICANT IMPACT (40 CFR 1508.27)

Based on the site-specific environmental analysis documented in the EA, the comments received from the public, and the agency response to those comments, I have determined that this is not a major Federal action that would significantly affect the quality of the human environment; therefore, an Environmental Impact Statement is not needed. This determination is based on the design of the selected alternative and the following factors:

- **THREATENED, ENDANGERED, AND SENSITIVE SPECIES** - Formal consultation with U.S. Fish & Wildlife Service concerning the northern spotted owl has been completed for this project. The Biological Opinion written by U.S. Fish & Wildlife Service and dated September 29, 1998 concluded that this project is not likely to jeopardize the continued existence of the **northern spotted owl** or result in the destruction or adverse modification of designated critical habitat. All Mandatory Terms and Conditions that implement the Reasonable and Prudent Measures specified in the Biological Opinion have been incorporated into the project (EA page 25, Appendix 1, Appendix 2, page H-24).

Informal consultation with National Marine Fisheries Service concerning listed **anadromous fish** has been completed for this project. They have concurred that this project will have a rating of "May Effect, Not Likely to Adversely Affect," on listed fish. The design criteria and Best Management Practices (BMPs) listed in the Biological Assessment are the same as those listed in the EA (EA pages 9 and 20, Appendix 1, Appendix 2 section E).

The EA contains a discussion of the effects to cutthroat trout, a species that was being considered for listing under the Endangered Species Act. Recently, the U.S. Fish and Wildlife Service decided not to list this species. No changes will be made to the proposed action as a result of that decision, and the effects and benefits to cutthroat trout will remain the same as described in the EA. In its conferencing letter (EA Appendix 2, page F-1), the U.S. Fish and Wildlife Service concurred that the project may affect, but is not likely to adversely affect, cutthroat trout. The U.S. Fish and Wildlife Service handbook on section 7 consultation (page 3-12) defines "Not Likely to Adversely Affect," as the appropriate conclusion when effects to listed species are expected to be discountable, or insignificant.

There will be no adverse effects to sensitive species of plants or animals (EA pages 24 and 26, Appendix 2, pages C-1 & G-8).

Therefore, the project will not jeopardize the continued existence of any listed species nor will it cause a trend to federal listing or loss of viability for any proposed or sensitive species.

- **CONSISTENCY WITH MT. HOOD FOREST PLAN** - The proposed action is consistent with Management Area goals, desired future conditions, and standards and guidelines identified in the Mt. Hood National Forest Land and Resource Management Plan as amended (Forest Plan).

It is consistent with the objectives of the Aquatic Conservation Strategy. Streams will be protected and riparian reserves will be carefully managed. Water quality and fish habitat will be protected (EA page 18, Appendix 2, page D-17).

It is consistent with late-successional reserve objectives. It will not alter late-successional habitats, it will not cause disturbance during the critical breeding period, and it will have a neutral affect (EA page 21, Appendix 2, pages G-2 thru G-20).

It is consistent with objectives for down woody debris, snags and green tree retention. The alternative has been designed to meet standards for these features (EA page 23).

It is consistent with Survey and Manage standards. Surveys have been conducted for Survey and Manage species. There are no species in the vicinity that require management of known sites (Appendix 1, Appendix 2, pages C-2 and G-1).

It is consistent with soil protection standards. The design of the logging systems with BMPs will meet Forest Plan standards for soil protection. (EA page 28, Appendix 2, pages A-4, A-9.) The projected impact for the proposed action when combined with existing impacts is approximately 8% detrimental soil impacts. The Forest Plan Standard of 15% was established to ensure there would be no significant reduction to long-term soil productivity (Forest Plan page Four-16 and Four-49).

It is consistent with standards for scenery, wildlife management, threatened, endangered and sensitive species protection, noxious weeds, hydrology, air quality, heritage resources and timber management (EA pages 16 to 35).

It is consistent with the National Forest Management Act regulations for vegetative management. There will be no regulated timber harvest on lands classified as unsuitable for timber production (36 CFR 219.14) and vegetation manipulation is in compliance with 36 CFR 219.27(b) (Appendix 2, page A-10)

- **WATER QUALITY AND FISHERIES** - The analysis shows (EA pages 16 to 20) that the roads pose minimal risk because they do not cross any streams, and are on stable, dry, gently sloping terrain. The location near ridge tops, seasonal restrictions, the obliteration after logging, and erosion control efforts combine to reduce risk. Logging in the riparian reserve will be done with skyline logging systems, seasonal restrictions, and no-cut buffers that also reduce risk. Therefore it is unlikely that erosion from disturbed soils would be transported to streams (EA pages 17 and 18). Sediment, if any, would not occur in quantities great enough to result in harm to downstream fish (EA page 20). The project will result in long-term improvements to forest health, wind firmness and to a watershed that provides clean water. The proposed action meets the ACS objectives, Riparian Reserve standards and guidelines and state water quality standards and the Clean Water Act. All of these objectives, standards and laws were established to ensure there would be no significant reduction to water quality or fish habitats.
- **LATE-SUCCESSIONAL RESERVES** - The LSR segment of the proposed temporary road does not pass through late-successional habitat, it will be kept as narrow as possible, and the trees that will need to be cut will be left for coarse woody debris (EA page 21). The second-

growth stand's function as dispersal habitat will not be altered. The new road plus $\frac{3}{4}$ mile of existing road will be obliterated and revegetated after project completion. A seasonal restriction is included to reduce disturbance effects. The Biological Evaluation shows that this road will have a neutral effect to the LSR (EA page 21 and Appendix 2, page G2).

- WIND - The thinning has been designed to minimize the risk of wind-thrown trees by retaining trees with the largest diameters, leaving no-cut buffers along adjacent plantations, and feathering the tree density in certain areas. Thinning is designed to provide long-term health and stability. Thinning will give the trees a chance to develop greater trunk and root strength and in the long-term, will result in larger healthier trees that can withstand wind (EA page 5, Appendix 1, Appendix 2, pages A-2 thru A-13).
- CUMULATIVE EFFECTS - The analysis considered not only the direct and indirect effects of the projects but also their contribution to cumulative effects. The analysis considered the proposed actions with BMPs and design criteria. No significant cumulative or secondary effects were identified. The EA elaborates on cumulative impacts related to resources such as water quality, soils and wildlife. These resources are within the standards set in the Forest Plan. Cumulative effects to threatened, endangered or proposed species are included in the biological assessments (EA pages 18, 19, 26, 27, and 28, Appendix 2, sections A, D, F, G, H).
- CULTURAL RESOURCES - Field surveys have been conducted and protection measures incorporated. Blaze trees along an abandoned trail in unit 1 will be marked as leave trees. The heritage resource report concludes that there would be no effect to any properties on or eligible to the National Register of Historic Places (Appendix 2, page J-1).
- OTHER –The effects are not likely to be highly controversial and do not involve highly uncertain, unique, or unknown risks. This action will not set a precedent because other similar actions have occurred in the past. The project was not found to threaten a violation of any Federal, State, or local law. The project complies with EO 12898 regarding environmental justice. No disproportionately high adverse human or environmental effects on minorities and/or low-income populations were identified during the analysis and public information process. No significant irreversible or irretrievable commitments of resources were found. There will be no affect to Wild and Scenic Rivers and State Scenic Waterways, wetlands, wilderness areas, research natural areas or any other areas with unique characteristics. The project will not affect public health or safety (EA pages 32 to 36). Adverse and beneficial impacts have been assessed and found to be not significant.

Appeal Rights:

This decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215. Any appeal of this decision must be in writing and fully consistent with the content requirements described in 36 CFR 215.14. The Appeal must be postmarked or received by the Appeal Deciding Officer, Regional Forester, ATTN.: 1570 APPEALS, P.O. Box 3623, Portland, OR 97208-3623 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 Mike Redmond at (503) 668-1700.

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 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/projects.htm>

For further information contact Jim Roden, Estacada Ranger Station, 595 NW Industrial Way, Estacada, OR 97023. Phone: (503) 630-8722 Email: jroden@fs.fed.us

Recommended By:

/s/ Jeff Walter
JEFF WALTER
District Ranger

Responsible Official:

/s/ Gary L. Larsen
GARY L. LARSEN
Forest Supervisor

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