

Cedar Ridge Timber Sale

Decision Record

Environmental Assessment: DOI-BLM-ORWA-S050-2010-0004-EA

September 2016

United States Department of the Interior
Bureau of Land Management
Oregon State Office
Salem District
Marys Peak Field Office

Township 7 South, Range 7 West, Section 33, Willamette Meridian
Polk County, Oregon

Responsible Agency: USDI – Bureau of Land Management

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1.0 Introduction

The Bureau of Land Management (BLM) conducted an environmental analysis for the Cedar Ridge timber sale, which is documented in the *Rickreall Creek Watershed Enhancement Environmental Assessment* (EA) (DOI-BLM-ORWA-S050-2010-0004-EA¹) and the associated project file. This decision authorizes the implementation of those activities directly related to and included within the Cedar Ridge timber sale. This timber sale is located in the Rickreall Creek fifth-field watershed in Polk County, Oregon.

2.0 Decision

I have decided to implement the Cedar Ridge timber sale, as described in the Alternative 2 of the EA, and as modified within this Decision Record, hereafter referred to as the “selected action” (Figure 1). This decision is based on site-specific analysis in the EA, the supporting project record, management recommendations in the Rowell Creek/Mill Creek/Rickreall Creek/Luckiamute River watershed analysis (1998), as well as the management direction contained in the Salem District Resource Management Plan (RMP) (1995), which are incorporated by reference in the EA. The Cedar Ridge timber sale conforms to the 1995 Salem District RMP; as such, land use allocations and corresponding acreages within this document are expressed in compliance with the 1995 Salem District RMP. The Cedar Ridge timber sale is located within the Adaptive Management Reserve² (Late-Successional Reserve within the Adaptive Management Area) and Riparian Reserves land use allocations. Compliance with direction is addressed further in section 5.0 of this document.

Decision Summary

The following is a summary of components of this decision. The Cedar Ridge timber sale consists of timber harvest, road work, and post-harvest fuel reduction treatments on 204 acres³ of the approximately 580 acres that the BLM manages in the section. Approximately 6.2 MMBF (million board feet) will be offered for sale, averaging 30.6 MBF (thousand board feet) per acre.

Density Management

Density management will occur on approximately 194 acres of 56–64 year old⁴ stands in the Adaptive Management Reserves (186 acres) and Riparian Reserves (8 acres) land use allocations. Density management in both land use allocations will be implemented by thinning from below to a variable basal area, leaving healthy dominant and co-dominant trees with the largest crowns. Pre-harvest stand basal areas range from approximately 170 to 350; basal area will be reduced to 120 to 125.

¹ The EA was originally published with NEPA number DOI-BLM-OR-S050-2010-0004-EA.

² Within the LSR, silvicultural activities may only occur in stands up to 80 years of age. In the AMR, such activities may occur in stands up to the 110 year age class (106-115 years).

³ Project actions will occur on 204 acres. This includes timber harvest on approximately 194 acres and 10 acres of rights-of-way (ROW). ROW calculations include both new road construction and existing roads in which trees will be cut as part of renovation. GIS was used to calculate acres; minor variances in rounding may occur.

⁴ Ages in 2016.

The BLM developed marking guidelines to ensure the prescription would be implemented as designed. Only Douglas-fir, noble fir, and western hemlock will be harvested within timber sale units.⁵ Minor species, including western redcedar and all hardwoods, will be reserved from harvest. Of the trees to be harvested, Douglas-fir represents approximately 57 percent, western hemlock represents 39 percent, and noble fir represents 4 percent. The average tree to be harvested is 13.7 inches diameter at breast height (DBH). Table 2–1 provides additional information on pre- and post-harvest stand attributes.

Table 2-1. Stand attributes: Pre- and post-harvest

EA Unit	EA Acres	Final Acres ¹	Pre-treatment values			Post-treatment values		
			TPA ²	Basal Area (ft ² /acre)	Canopy Cover (%)	TPA	Basal Area (ft ² /acre)	Canopy Cover (%)
33A	71	65	145	179	66	61	120	54
33B	85	44	238	326	73	85	125	48
33C	123	95	264	244	74	123	120	56
Total¹	279	204						

¹Includes 10 acres of rights-of-way for new road construction and road renovation. ROWs cross multiple units.

²Trees per acre. Includes all species greater than 7 inches DBH.

Timber Yarding

Timber will be yarded by ground-based and skyline yarding systems.

- Ground-based yarding – 94 acres (48 percent)
- Skyline yarding – 100 acres (52 percent)

Fuel Reduction Treatments

The BLM will conduct post-harvest fuel surveys and recommend fuel reduction treatments as described in the EA. Fuel reduction treatments may include pile construction, covering, and burning at landings, within treatment areas, along roads, or property lines. Other options include slash pullback, slashing, lopping and scattering, and firewood cutting (EA, p. 21).

Road Construction and Decommissioning

Approximately 0.74 miles (3,900 feet⁶) of new road construction will occur. For analytical purposes, the BLM estimates the average clearing width to be 40 feet, resulting in clearing approximately 3.5 acres of forested land. The P1 and P2 spurs will have natural surfacing. Rock will be applied to the P3, P4, and P5 spurs, where skyline yarding is the dominant yarding method.

Approximately 0.72 miles (3,800 feet) of road construction will occur in the AMR and 0.02 miles (100 feet) will occur in the Riparian Reserves. No road construction will occur within 100 feet of streams.

The EA stated that new roads would be decommissioned following harvest (EA, p. 50). Roads, as indicated on the Selected Action map in this DR, will be blocked to vehicular traffic, will have cross-drains and culverts pulled, and will have waterbars installed. The rocked surface will

⁵ Marking guidelines do not apply to road rights-of-way.

⁶ This represents a reduction of approximately 1,000 feet analyzed in the EA.

remain in place on the P3, P4, and P5 spurs. This level of decommissioning (or long-term closure or storage) will result in the re-establishment of overland flow paths through the road prism and re-establishment of natural stream function where culverts are removed. Other existing roads will be left in place following harvest to allow for future management and administrative access.

Road Renovation and Improvement

Renovation will occur on approximately 2.3 miles (12,000 feet) of existing roads and road improvement will occur on approximately 1.7 miles (8,700 feet) of existing road. Renovation actions are those needed to restore the road to original design specifications and may include blading, brushing, removing obstructions or trees within the right-of-way, reshaping drainage dips and the road bed, replacing and/or installing crossdrains and live water culverts, and spot aggregate placement where needed. Improvement actions are those that improve the road over its original design standard and may include those actions described above.

Post-harvest Monitoring

Monitoring is an important piece of project implementation, as it allows the BLM to assess whether the goals and objectives of the project were met. Such information can be used to assist in future project development. The BLM will conduct post-harvest monitoring to determine site-specific fuel treatment needs, the extent of *Phellinus weirii* infection centers, and subsequent treatment needs. Further, stand exams are recommended in years following treatment to collect data on trees, snags, coarse woody debris, and ground vegetation (silvicultural prescription, p. 21).

Updated Information and Clarifications

The updated information described below is not substantially different from the proposed action described in the EA and does not alter the analysis or its conclusions.

Visual Resource Management (VRM)

The Cedar Ridge timber sale was 279 acres in size at the time of the EA analysis and included lands with VRM classes I, III, and IV. Of the 204 acres in the timber sale at the time of this decision, only lands with VRM Classes III and IV remain. No lands within VRM Class I or II remain in the timber sale area. The planned thinning harvest remains consistent with requirements for VRM classes III and IV.

Dropping Harvest within the Rickreall Ridge Area of Critical Environmental Concern (ACEC)

The original design for the Cedar Ridge timber sale included road work and approximately 15 acres of thinning harvest within the then-proposed ACEC. The BLM has excluded from this timber sale all portions within the ACEC as defined in the 2016 RMP, which includes and expands upon the 1995 ACEC. As a result, the planned road reconstruction south of EA Unit 33B, through the proposed ACEC, is no longer necessary. Instead, the BLM interdisciplinary team determined that a short piece of new road construction would be appropriate to harvest the remaining unit. This 385 foot spur (P1) is located in a stable area with gentle topography and requires no new stream crossings. This road will be built in conformance with the design features and restrictions described and analyzed in the EA.

Project Design Features

Project design features, best management practices, and seasonal restrictions described in the EA (pp. 21–33) have been incorporated into the timber sale contract, with the modifications as noted below.

Grass Seed Requirements

The BLM has updated the requirements for grass seeding. Large areas of exposed mineral soil (e.g., skid roads), as determined by the Authorized Officer, would be sown with red fescue (*Festuca rubra*) at a rate equal to 40 pound per acre. However, instead of limiting contractors to seed that is Oregon Certified (blue tagged), the BLM will apply the following limits and thresholds that the seed must meet or exceed:

- Percent germination rate: 85% minimum
- Percent pure seed: 97% minimum
- Crop and weeds: none
- Noxious weed seed: none

If seed is not available, the project area will be sown with seed approved by the field office botanist. Prior to applying seed, the contractor will supply the BLM with the seed label showing testing results listed above (BMP R 97).

Hauling in November and December

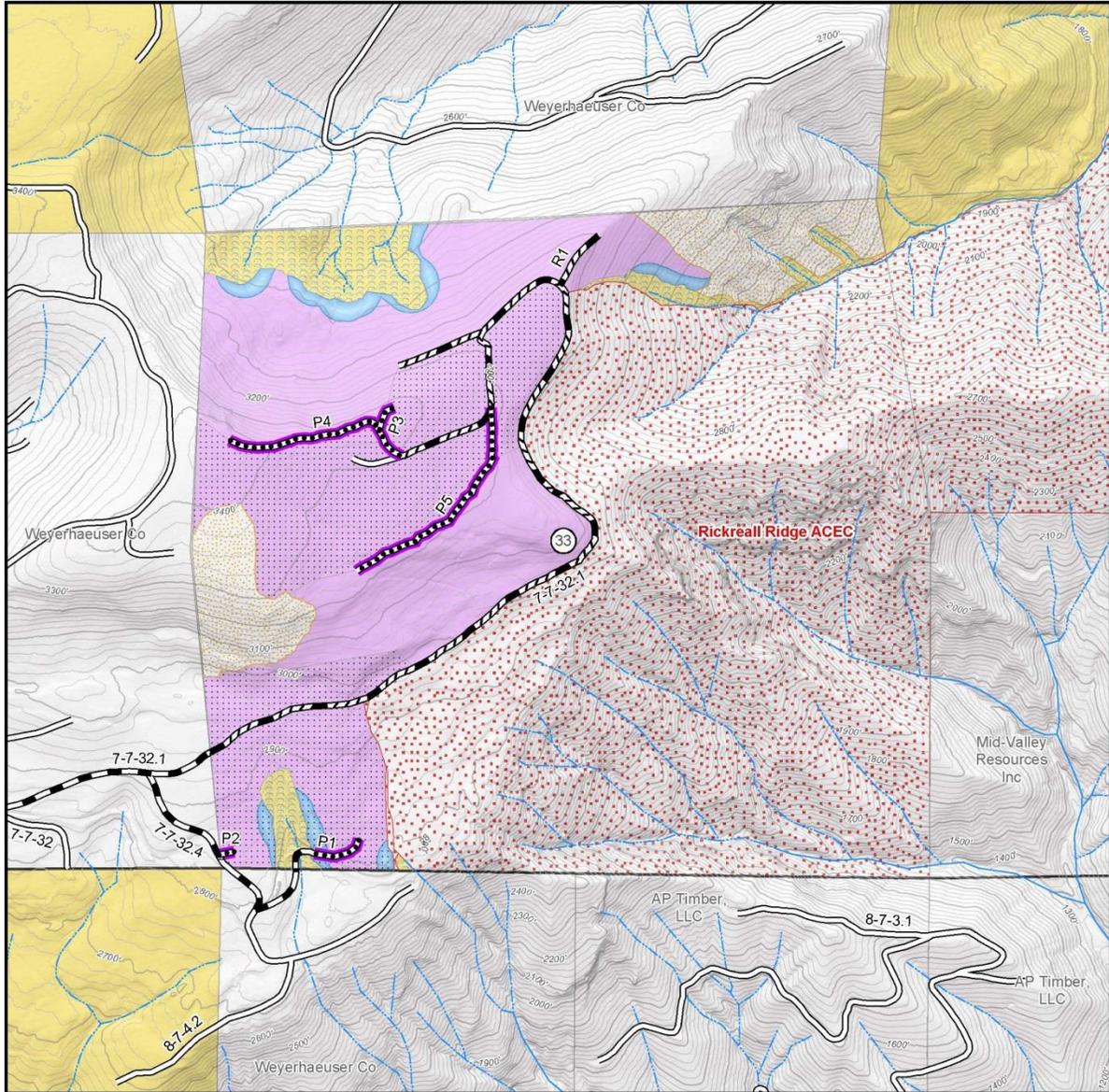
The EA included hauling restrictions in the analysis area. Hauling on select roads is limited to periods of low soil moisture (typically 15 percent or lower), generally between May 1 and October 31. However, actual conditions supersede calendar dates (EA, p. 36). To clarify this restriction, hauling during the months of November and December will be based on rainfall amounts occurring at Rockhouse RAWS station or an on-site gauge. Hauling will be prohibited during periods of heavy rainfall when rainfall amounts exceed 1 inch within a 24 hour period. Haul may commence following a minimum 24 hour period without rainfall. The BLM may require installation of sediment retention devices (e.g., bark bags) in all ditches that drain directly to the Little Luckiamute within the lower one mile of gravel road past the paved section for hauling. Otherwise, hauling will be restricted during the months of January, February, and March.

Figure 1. Selected Action



UNITED STATES DEPARTMENT OF THE INTERIOR
 Bureau of Land Management
 Salem District - Oregon
CEDAR RIDGE TIMBER SALE
 T. 7 S., R. 7 W., Section 33, W. M. - SALEM DISTRICT - OREGON

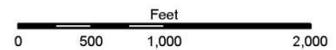
Cedar Ridge Timber Sale
SELECTED ACTION
 Sheet 1 of 1



- Road to be Constructed
- Road to be Improved
- Road to be Renovated
- Road to be Decommissioned
- Existing Road
- Fishbearing
- Non-Fishbearing

- Cedar Ridge Density Management
- Cedar Ridge Riparian Reserve
- Poor stocking
- Rickreall Ridge ACEC (2016 RMP)
- Stream protection zone

- Ground-Based Yarding
- Skyline Yarding



Contour interval: 20ft.
 Date: 9/26/2016

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

3.0 Alternatives Considered

The EA analyzed the effects of the No Action, Proposed Action, and No New Road Construction alternatives. No unresolved conflicts concerning alternative uses of available resources (section 102(2) (E) of NEPA) were identified. In the EA (p. 53), the BLM discussed additional alternatives that related to specific timber sales (e.g., Rick-Line). These options did not relate to the Cedar Ridge timber sale; no specific alternatives were considered but not analyzed in detail for this timber sale. Complete descriptions of the three alternatives are in the EA (pp. 15–44).

4.0 Decision Rationale

When writing this rationale, I consulted and reviewed the following documents and records:

- The EA and supporting project record (including public comments);
- Management recommendations within the Mill Creek, Rickreall Creek, Rowell Creek, Luckiamute River Watershed Analysis (1998), the Late Successional Reserve Assessment, Oregon Coast Province – Northern Portion (1998); and
- Management direction within the 1995 Salem District RMP.

I have decided to implement Alternative 2, the selected action, as described in Section 2.0 of this DR. My decision is consistent with the criteria described in the EA for selecting which alternative to implement (EA pp. 6–7). The selected action:

- Best meets the purpose and need of the project (EA Section 1.6);
- Is consistent with the 1995 Salem District RMP as authorized by the 2016 ROD/RMP; and,
- Will not have significant impacts on the affected elements of the environment beyond those already anticipated and addressed in the PRMP/FEIS.

Further, the Selected Action:

- Is economically viable and efficient. This sale will produce revenue for the Federal Government, provide jobs for Oregonians, and minimize waste while meeting the purpose and need; and
- Meets Aquatic Conservation Strategy objectives (EA pp. 127–138); and
- Has been adequately analyzed.

Of the three alternatives analyzed, Alternative 2 best meets project objectives. I did not select Alternative 1 (No Action) as the alternative does not meet the purpose and need. Taking no action would fail to address the need to accelerate the late-successional old growth forest conditions within the project area; our current understanding indicates that managed forests in the project area have declining growth rates and limited structural diversity. Applying density management via the Cedar Ridge timber sale will improve conditions for long-term increases in fish and late-successional wildlife species, especially northern spotted owl and marbled murrelet populations. For many of the same reasons, I did not select Alternative 3, which would have treated approximately 35 percent fewer acres than Alternative 2.

5.0 Compliance with Direction

The BLM signed a Record of Decision approving the Northwestern and Coastal Oregon Resource Management Plan (2016 ROD/RMP) on August 5, 2016. Revision of an RMP necessarily involves a transition from the application of the old RMP to the application of the new RMP. The planning and analysis of future projects such as timber sales requires several years of preparation before the BLM can design a site-specific project and reach a decision. Allowing for a transition from the old RMP to the new RMP avoids disrupting the management of BLM-administered lands and allows the BLM to utilize work already begun on the planning and analysis of projects.

The 2016 ROD/RMP (pp. 10-11) allows the BLM to implement projects consistent with the management direction of either the 1995 RMP or the approved RMP, at the discretion of the decision maker, if—

- The BLM had not signed a project-specific decision prior to the effective date of the ROD;
- The BLM began preparation of NEPA documentation prior to the effective date of the ROD; and
- The BLM signs a project-specific decision on the project within two years of the effective date of the ROD.

The Salem District began preparation of NEPA documentation prior to the effective date of the 2016 ROD/RMP, as the District initiated planning and NEPA documentation for this project on August 19, 2010. This project was designed to conform to and be consistent with the Salem District's 1995 Record of Decision and Resource Management Plan (1995 ROD/RMP).

This project meets the criteria described in the 2016 ROD/RMP that allows the BLM to implement projects that conform and are consistent with the 1995 ROD/RMP, with the exception of five categories of prohibited carry-over actions (2016 ROD, p. 11). The Cedar Ridge timber sale has been modified to exclude any actions that are excepted and therefore precluded from the 2-year transition period under the 2016 ROD/RMP.

1. *Regeneration harvest (construction of roads or landings does not constitute regeneration harvest) within the Late-Successional Reserve allocated by this ROD that is inconsistent with the management direction for the Late-Successional Reserve contained within the approved RMP.*

This exception does not apply to the Cedar Ridge timber sale, because the project does not include any regeneration harvest.

2. *Issuance of right-of-way grants within the Late-Successional Reserve allocated by this ROD that are inconsistent with the management direction for the Late-Successional Reserve contained within the approved RMP.*

This exception does not apply to the Cedar Ridge timber sale, because the project does not include the issuance of right-of-way grants with the Late-Successional Reserve allocated by the 2016 ROD.

3. *Commercial thinning within the inner zone of the Riparian Reserve allocated by this ROD that is inconsistent with the management direction for the Riparian Reserve contained within the approved RMP.*

This exception does not apply to the Cedar Ridge timber sale, because the project excludes all thinning within the inner zone of the Riparian Reserve allocated by this ROD. The Cedar Ridge timber sale originally included buffers ranging from 55–75 feet in size. The BLM has expanded these buffers and has applied 120 foot no cut buffers to all streams within the Cedar Ridge timber sale project area.

4. *Projects within the District-Designated Reserve – Lands Managed for their Wilderness Characteristics allocated by this ROD that are inconsistent with the management direction for the District-Designated Reserve – Lands Managed for their Wilderness Characteristics contained within the approved RMP.*

This exception does not apply to the Cedar Ridge timber sale, because the project is not located within the District-Designated Reserve – Lands Managed for their Wilderness Characteristics.

5. *Timber harvest that would cause the incidental take of northern spotted owl territorial pairs or resident singles and does not have a signed Biological Opinion and Incidental Take Statement that predates the effective date of the Biological Opinion for the approved RMP.*

The Cedar Ridge timber sale will not cause incidental take of northern spotted owl territorial pairs and does not have a signed BO and Incidental Take Statement that predates the effective date of the BO for the approved RMP.

Survey and Manage Review

The Cedar Ridge timber sale is consistent with court orders relating to the Survey and Manage mitigation measure of the Northwest Forest Plan, as incorporated into the Salem District RMP.

In 2006, the District Court for the Western District of Washington (Judge Pechman) invalidated the agencies' 2004 RODs eliminating Survey and Manage due to National Environmental Policy Act (NEPA) violations. Following the District Court's 2006 ruling, parties to the litigation entered into a stipulation exempting certain categories of activities from the Survey and Manage standard (hereinafter, "Pechman exemptions").

Judge Pechman's Order from October 11, 2006 directs:

“Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD

applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:

- a. Thinning projects in stands younger than 80 years old;
- b. Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
- c. Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement large wood, channel and floodplain reconstruction, or removal of channel diversions; and
- d. The portions of projects involving hazardous fuel treatments where prescribed fire is applied. Any portion of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and management requirements except for thinning of stands younger than 80 years old under subparagraph a. of this paragraph.”

I have reviewed the Cedar Ridge timber sale in consideration of Judge Pechman’s October 11, 2006, order. Because the project includes no regeneration harvest and includes thinning only in stands less than 80 years old, I have made the determination that this project meets Exemption a of the Pechman Exemptions (October 11, 2006, Order) and, therefore, may still proceed to be offered for sale.

Compliance with the Aquatic Conservation Strategy

This BLM reviewed the alternatives against the ACS objectives at the project scale. The Selected Action does not retard or prevent the attainment of any of the nine ACS objectives (EA, pp. 128–138). Approximately 8 acres (4 percent) to be thinned are within the Riparian Reserve. These acres will be thinned to promote structural and species diversity, consistent with RMP and ACS objectives.

6.0 Public Involvement, Consultation, and Coordination

Public Scoping

The BLM provided opportunities for the public to provide input throughout the planning process. On August 19, 2010, the BLM sent a scoping letter to 19 potentially affected or interested individuals, groups, and agencies. The BLM received three letters during the formal scoping period and used these in the development of the project. The Rickreall Creek Watershed Enhancement EA (which includes the Cedar Ridge timber sale) has appeared regularly in the BLM publication Project Update since 2010.

EA and Draft Finding of No Significant Impact (FONSI) Comment Period

The BLM made the EA and draft FONSI available for a 30 day public review on March 7, 2012

and received three comment letters during this period. Responses to the substantive public comments relevant to the Cedar Ridge timber sale can be found in Appendix A of this DR. Comment letters and e-mails are available for review at the Salem District BLM Office.

Consultation and Coordination

Wildlife: United States Fish and Wildlife Service (USFWS)

Due to potential affects to Critical Habitat that has been designated for the spotted owl and marbled murrelet, Section 7(a) of the Endangered Species Act requires that this proposed action receive consultation with the U.S. Fish and Wildlife Service. Consultation has been addressed by inclusion of the proposed action within a batched Biological Assessment (BA) that analyzed all projects that may modify the habitat of listed wildlife species on federal lands within the Northern Oregon Coast Range during fiscal years 2015 and 2016. All projects within this proposed action have been designed to incorporate all appropriate design standards included in the BA. A Letter of Concurrence (#01EOFW00-2014-I-0234, dated September 23, 2014) was received from the Service and it concurred that the proposed action was not likely to adversely affect any listed species or their designated critical habitat.

Fisheries: National Marine Fisheries Service (NMFS)

Consultation with NOAA NMFS is required for projects that “may affect” listed species. A determination has been made that the proposed project will have “no effect” on Upper Willamette River (UWR) Winter Steelhead trout and UWR Chinook Salmon nor their designated Critical Habitats. Generally, the “no effect” determination is based on the distance of a project to ESA listed fish habitat. The distance from ESA habitat is approximately five miles to project activities. Due to the “no effect” determination, this project was not consulted upon with the NOAA NMFS.

Protection of EFH (Essential Fish Habitat) as described by the Magnuson/Stevens Fisheries Conservation and Management Act and consultation with NOAA NMFS is required for all projects which may adversely affect EFH of Chinook salmon and coho salmon. The proposed Cedar Ridge timber sale is not expected to affect EFH due to distance of all activities associated with the project from occupied habitat.

7.0 Conclusion

Review of the Finding of No Significant Impact

I have reviewed the FONSI that was published in April 2012. Change is not necessary because I have considered and concur with information in the EA and FONSI. I reviewed the comments on the EA and no information was provided in the comments that leads me to believe the analysis, data, or conclusions are in error or that the selected action needs to be altered. There are no significant new circumstances or facts relevant to the selected action or associated environmental effects that were not addressed in the EA.

Administrative Review Opportunities

The decision described in this document is a forest management decision and is subject to protest by the public. In accordance with Forest Management Regulations at 43 C.F.R. 5003, protests of this decision may be made within 15 days of the publication of a notice of decision in a newspaper of general circulation. The notice of decision will be published in the Polk County Itemizer-Observer newspaper on September 28, 2016.

To protest a decision, a person must submit a written protest to the Marys Peak Field Manager at 1717 Fabry Road SE, Salem, Oregon, 97306. A written protest electronically transmitted (e.g., email, facsimile, or social media) will not be accepted as a protest. A written protest must be on paper and must be received by the Marys Peak Field Manager by the close of business (4:30 p.m.) on October 13, 2016. For additional information about this process, contact Stefanie Larew, project lead, at (503) 375-5601.

The protest must clearly and concisely state the reasons why the decision is believed to be in error. Any objection to the project design or my decision to go forward with this project must be filed at this time in accordance with the protest process outlined above. If a timely protest is received, this decision will be reconsidered in light of the statements of reasons for the protest and other pertinent information available and the BLM shall serve a decision in writing on the protesting party (43 C.F.R. 5003.3).

Implementation

If no protest is received within 15 days of notice of publication of this Decision Record, this decision will become final. The planned sale date is October 26, 2016. For additional information about the Cedar Ridge timber sale, contact Andy Frazier, Supervisory Forester, at (503) 315-5979 or afrazier@blm.gov.

Approved by: _____


Paul Tigan
Marys Peak Field Manager

9/26/16
Date

Appendix A: Response to Public Comments Received on the Rickreall Creek Watershed Enhancement Environmental Assessment (DOI-BLM-ORWA-S050-2010-0004-EA)

The BLM received three comment letters during the 30 day public comment period for the EA. It is the BLM's intent in this DR to respond to substantive comments directly related to the Cedar Ridge timber sale. Many comments are statements of opinion, generic in nature, or do not pertain to the Cedar Ridge timber sale. In some cases the comments have been quoted directly from commenter's responses and in some cases they have been paraphrased. Comments are in *italics*. The BLM response follows each comment.

- 1. Comment:** *In the NE quadrant of section 33...it's unclear if the area is proposed for treatment. This portion of the stand should be dropped from the project entirely, except possibly hand felling small trees (<12" DBH) to maintain historic openings.*

Response: The southern and eastern portions of section 33 include a portion of Rickreall Ridge Area of Critical Environmental Concern (ACEC). The Cedar Ridge timber sale excludes the entire ACEC as designated in the 1995 RMP and the 2016 RMP. In the EA, the Cedar Ridge timber sale originally included approximately 15 acres of the then-proposed ACEC. These acres have subsequently been dropped from the timber sale. Any future management within the ACEC would be in accordance with the management plan and would be subject to NEPA analysis.

- 2. Comment:** *"It appears all of the proposed timber sales are within the LSR. Therefore, stands within the LSR that are over 80 years of age cannot be logged in any fashion...Road construction in Late-Successional Reserves for silvicultural, salvage, and other activities generally is not recommended unless potential benefits exceed the costs of habitat impairment."*

Response: The commenter is correct that timber harvest is restricted in LSRs over 80 years of age in the 1995 RMPs. However, the Cedar Ridge timber sale is not within the Late-Successional Reserves. As stated on page 17 of the EA, the six timber sales are located within the Adaptive Management Area (AMA) and Riparian Reserves. A portion of the AMA is "designated as Late-Successional Reserves within the Adaptive Management Area" (RMP, p. 19), referred to in the EA as Adaptive Management Reserves (AMR). Within the AMR, timber harvest may occur up to the 110 year age class (106–115 years) to meet LSR objectives.

Stands within the Cedar Ridge timber sale are 56 to 64 years of age and are within the AMR and Riparian Reserves land use allocations. No road construction is proposed within the LSR. Approximately 0.74 miles (3,900 feet) of road construction will occur within the AMR and Riparian Reserves. All new road construction and a portion of the improved R1 road will be put into a state of long-term storage following completion of timber sale activities.

The BLM thoroughly analyzed the proposed actions and their potential impacts in the EA. The BLM disagrees that the project would result in significant effects and has instead determined that the treatments designed for the Cedar Ridge timber sale will result in long-term benefits and accelerate the development of late-successional forest conditions.

- 3. Comment:** *Logging in the Riparian Reserves isn't needed. Logging captures mortality and will reduce recruitment of snags and large wood over a long period of time. Without logging more wood will be available over time for recruitment as snags, dead wood, and instream woody structure.*

Response: Approximately 8 acres (4 percent) of the Cedar Ridge timber sale is within the Riparian Reserves. The BLM developed the purpose and need for the Riparian Reserves portion of the sale based on guidance in the 1995 Salem RMP, NWFP, and the applicable watershed analyses (EA section 1.6). The BLM is directed to apply silvicultural practices to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics for attaining ACS objectives (1995 RMP, p. 11). As addressed earlier in this DR, the no-cut buffers have been increased from 55-75 feet to 120 feet on all streams in the project area. This resulted in a substantial decrease in the acres of Riparian Reserve to be treated under the timber sale, from 32 acres at the time of the EA analysis to 8 acres at the time of decision. However, the BLM determined that treatment is still appropriate for remaining acres in respect to current conditions and management direction.

Desired vegetation characteristics required for proper Riparian Reserve function, include large trees, abundant and well-distributed mature and understory conifers, diverse shrub species, and large woody debris in stream channels and on floodplains. The Riparian Reserves stands in the project area lack many of these characteristics (Rick-Line and Cedar Ridge prescription, pp. 6, 11, 12). The planned variable density thinning will address these deficiencies. A moderate-intensity thinning within the Riparian Reserves (but outside the 120 foot no-cut stream buffer) will allow more light to the understory, which will stimulate the growth of a diversity of understory shrub and tree species.

The density management is a “thin from below” treatment in which trees in the smaller diameter classes are cut and the larger, more vigorous trees are left standing. This type of thinning captures smaller, suppressed trees that would likely succumb to density mortality at some point in the future, though the timing is hard to predict. Density management would delay the input of small diameter CWD; however, to prevent a future shortage of CWD, the project includes provisions for monitoring and future activities to create downed logs and snags to meet ACS objectives (Rick-Line and Cedar Ridge prescription, pp. 16–17, 20–21).

The BLM found that the implementation of project design features would be adequate for protecting future wood recruitment. Wood recruitment studies conducted in the Pacific Northwest have shown the majority of woody debris recruitment occurs within 18 to 20 meters (59 to 65 feet) of the stream edge (McDade et al. 1990, Van Sickle and Gregory 1990, Meleason et al. 2002) (EA, p. 70). The no-harvest buffers along streams within the timber sale were designed and analyzed to be variable from 50-75 feet wide on each side of the stream. The no-cut buffer widths of Cedar Ridge are greater than this woody debris recruitment zone, and would be anticipated to maintain instream wood recruitment rates (EA, pp. 71, 134, 136).

- 4. Comment:** *We believe that logging would adversely affect marbled murrelet habitat and the northern spotted owl.*

Response: The BLM consulted with the USFWS on the projects analyzed in the EA. As stated in section 7.0 of this DR, the BLM received a Letter of Concurrence (#01EOW00-2014-I-0234, dated September 23, 2014) from the USFWS that concurred that the proposed action was not likely to adversely affect any listed species or their designated critical habitat. In the short-term, project actions are likely to maintain habitat conditions for both the northern spotted owl and the marbled murrelet. Treatments are expected to be beneficial to future habitat conditions, because treatments are likely to accelerate the development of late-seral forest structure, which would promote development of potential nesting structure sooner than if left untreated.

Marbled murrelet – The Cedar Ridge timber sale is within critical habitat for the marbled murrelet (OR-02-D); however, the young stands within the timber sale do not currently contain suitable habitat for the species. There is no potential nesting structure in the harvest units and there are no known marbled murrelet occupied sites within the Upper Rickreall watershed. The closest occupied site is over three miles northwest of Cedar Ridge (EA, p. 111).

Northern spotted owl – The Cedar Ridge timber sale is within critical habitat for the northern spotted owl (CHU-OR-7). The Cedar Ridge timber sale currently provides only dispersal habitat for the species, since these units generally lack older forest structure that provide suitable nesting, roosting, and foraging habitat (EA, p. 110). The nearest known site, Dutch Creek, is nearly three miles from the Cedar Ridge timber sale area.

The BLM adequately analyzed the effects of the project on the marbled murrelet, the northern spotted owl, and their critical habitats and determined that the Cedar Ridge timber sale is not likely to adversely affect the species or their critical habitats.

5. Comment: *We urge BLM to avoid new road construction, especially in reserves. The adverse effects of road construction offset any restoration benefits.*

Response: The IDT determined that the road construction is necessary for an economically viable timber sale that will meet the purpose and need of the project to accelerate the development of late-successional forest conditions. Approximately 3,800 feet of new construction will occur within the AMR and approximately 100 feet of temporary road construction will occur in the Riparian Reserves. Approximately 300 feet of existing road in the Riparian Reserves will be renovated. The temporary road within the Riparian Reserves is greater than 100 feet of the nearest stream and will be left as a natural surface. All new road construction, regardless of land use allocation, a portion of the improved R1 road, and the 300 feet of road renovation within the Riparian Reserves will be decommissioned or put into a state of long-term storage following harvest activities. The BLM analyzed the project activities and determined that Aquatic Conservation Strategy objectives would be met (EA, pp. 128–138). Application of Project Design Features and Best Management Practices will reduce the potentially negative effects associated with road construction.

6. Comment: *We urge the BLM to find the optimal mix of treated and untreated stands. In order to achieve all the objectives for optimal late successional forest conditions, restoration projects must contain both thinned and unthinned patches.*

Response: Scoping comments on the EA encouraged the inclusion of gaps and clumps within the harvest units: “gaps should not be clearcut but rather should retain some residual structure in the form of live or dead trees...even small clumps and patches of trees are desirable.” The BLM designed the Cedar Ridge timber sale to include both clumps and gaps. Clumps and gaps ranging from one-tenth acre to one-half acre in size are included the silvicultural prescription.

Rick-Line and Cedar Ridge Silviculture Prescription (pp. 14, 20, 34):

“Leave one unthinned clump per approximately 5 acres within the project area. Each clump will consist of 15-25 trees, approximately 40’ radius, and may be sited adjacent to snags or other natural features, or randomly located.”

Cedar Ridge 33B – Unthinned clumps up to 0.5 acre in size, and gaps up to 0.5 acres in size would be retained within contiguous treatment areas of greater than 20 acres at a rate of 1 acre of clump and 1 acre of gap per 2 acres.

In addition to the clumps and gaps that occur within the Cedar Ridge timber sale boundaries, approximately 375 acres of BLM-managed lands in the section will remain untreated (as addressed further in responses below). The BLM has determined that the Cedar Ridge timber sale has been appropriately designed to meet the purpose and need for the action in the AMR and Riparian Reserves. Additional clumps and gaps are not necessary.

- 7. Comment:** *Thinning captures mortality and results in a long-term reduction in recruitment of functional down wood. The BLM needs to provide a more rigorous analysis to prove that the harvest activities will not harm future CWD and LWD recruitment. Don’t discount the value of large quantities of small-diameter wood. BLM must account for the effects of logging on both the quantity and the quality of wood.*

Response: The Cedar Ridge timber sale will not result in long-term negative impacts to down wood. The BLM has addressed the “quality vs. quantity” issue as it relates to CWD. The EA directly states that with treatment there would be a reduction in the *quantity* of available future CWD. The BLM did not state nor imply that this volume would be offset by growth of remaining conifers; however, the future wood available for CWD would be of higher *quality*.

Thinning dense stands would capture some density-dependent suppression mortality; however, the recruitment of dead wood within treated stands and adjacent untreated habitat is an ongoing and age-independent natural process involving biotic and abiotic forces. Biotic mechanisms, in addition to density-dependent suppression mortality, include disease, insects, and animal damage. Abiotic processes include fire, wind, ice glazing, snow loading, flooding, landslides, debris torrents, and crushing (trees falling on trees). Abiotic processes, unrestricted by tree densities, provide a constant supply of dead wood by damaging or destroying individual trees, patches of trees within stands, stands within watersheds, and entire watersheds themselves (Bauhus et al., 2009).

Of the 580 acres of BLM-managed land in section 33, approximately 204 acres will be treated

within the Cedar Ridge timber sale. Approximately 375 acres, nearly two-thirds of BLM's ownership in the section, will be left untreated. Many of these acres are within the no-harvest buffers along streams. These acres are not aggregated in one area; rather, they are distributed across section. The no-harvest buffers, 120 feet on each side of the stream, provide places where competition-related mortality will continue and natural LWD recruitment processes will be maintained.

The effects on wood recruitment of thinning adjacent to no-treatment zones and compliance with ACS objectives were discussed in the EA (pp. 128–138). Wood recruitment studies conducted in the Pacific Northwest have shown the majority of woody debris recruitment occurs within 18 to 20 meters (59 to 65 feet) of the stream edge (McDade et al. 1990, Van Sickle and Gregory 1990, Meleason et al. 2002). The stream protection zone widths applied to Cedar Ridge are substantially greater than this woody debris recruitment zone, and would be anticipated to maintain instream wood recruitment rates (EA, pp. 71, 134, 136).

Additionally, the silviculturist prescribed four unthinned clumps and four gaps (each up to one-half acre in size) within the Cedar Ridge timber sale units. These untreated acres will allow for continued biotic and abiotic processes that provide all sizes of CWD and LWD independent of active management intervention.

- 8. Comment:** *The BLM does not disclose that the No Action alternative will provide continued diameter growth on far more stems and greater total future recruitment of large wood compared to the logging alternatives.*

Response: Nearly two-thirds of the section will be left untreated and will continue to provide for uninterrupted biotic and abiotic processes that produce CWD and LWD of all sizes (including much of the smaller diameter material that succumbs to density mortality). The Cedar Ridge silvicultural prescription, which was incorporated by reference into the EA, provided a description of the affected environment and the predicted effects of selecting the No Action alternative (pp. 12–14):

“Without treatment, stand structure would become increasingly uniform, except for gaps created by disturbance. Hardwood tree species would become overtopped and most of them lost from the stand. The main input of coarse woody debris would come from density mortality, disturbance events and endemic levels of insects and disease, resulting in more snags and downed logs than with treatment. In general, the quantity of mortality would be much greater than if the stands were thinned, but dead trees would be smaller in size.”

The BLM adequately analyzed and disclosed the predicted effects of the No Action alternative and determined it does not meet the purpose and need to accelerate the development of late-successional forest conditions. The BLM determined that the benefits of density management, which include stimulation of understory development, increased health, stability, and vigor of remaining trees, and immediate creation of CWD, outweigh the loss of small-diameter CWD associated with harvest.