UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
SALEM DISTRICT OFFICE

DECISION RATIONALE FOR THE
SOUTH HAMMER DENSITY MANAGMENT PROJECT
ENVIRONMENTAL ASSESSMENT No. OR080-00-09

I have reviewed the proposal and alternatives for the accomplishment of the South Hammer Density Management project, a portion of the Fiscal Year 2001 timber sale program for the Marys Peak Resource Area. The affected environment, proposed action and potential environmental consequences of the timber sale and associated activities are described in the South Hammer Density Management Environmental Assessment (EA). The EA and Finding of No Significant Impact (FONSI) were made available for public review from March 13, 2001 to April 16, 2001.

Programmatic documents covering this proposal are the:

Record of Decision and Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines (S&M ROD, January 2001)

Final Supplemental Environmental Impact Statement For Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines (S&M FSEIS, November 2000).

Salem District Record of Decision and Resource Management Plan (RMP, May 1995)

Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (ROD, April 1994)

Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional Forest Related Species Within the Range of the Northern Spotted Owl (SEIS, February 1994)

Western Oregon Program-Management of Competing Vegetation Final Environmental Impact Statement (VMFEIS, February 1989) and the *Western Oregon Program-Management of Competing Vegetation Record of Decision (August 1992).*

The EA is tiered with the aforementioned environmental documents. All of these documents may be reviewed at the Marys Peak Resource Area office.

Decision Rationale

Considering public comment, the content of the EA and supporting project record, the management recommendations contained in the *South Fork Alsea Watershed Analysis* (October 1995), and the management direction contained in the RMP, I have decided to implement the selected action as described above. My rationale for this decision follows:

1. The selected action addresses the identified purpose and need for action in that it will meet the need for forest habitat as described in the *Salem District Resource Management Plan* (RMP, 1995, p. 1 and 2) . The proposal would provide for retention of important ecological components within the forest management area (EA, pg 3). Density management would also meet the following goals:

    a. The area is currently dense for trees and growth rates are not high. A density management treatment would help to boost growth rates on residual trees. This would provide larger trees in a shorter time for suitable snags and CWD.

    b. Selected trees with high crown ratios would have competing trees thinned enough to maintain high live crown ratios, thus helping to form limby wolf trees scattered throughout the stand.

    c. Because the area is so densely stocked, understory development is poor. Both understory trees, brush and herbs are lacking in the proposed treatment area. This action would help to quickly introduce these structural attributes to the area.

    d. Coarse woody debris recruitment: Up to one tree per acre would be left on site by the following methods:

        1. Where it is necessary to cut reserve trees for corridors or tail hold trees, leave all trees greater than 20 inches DBH.

        2. If insufficient CWD is created by the above method then reserve trees would be felled and left following harvest operations. These reserved trees would generally consist of the largest in diameter within the stand. (EA pp. 7).

    e. Monitoring activities related to this sale will be done as described in Appendix J of the RMP (May, 1995*)*.

2. The "density management without harvest" alternative (Alternative 2) was not selected for the following reasons:

    The retention of large amounts of dead wood on the ground would immediately increase the risk of fire as well as the rate of spread and resistance to control. The risk of a fire and the rate

of its spread would be highest during the first 1 to 2 years following cutting when there is a large amount of fine fuel in a surface and aerial arrangement. The resistance to control, determined by the amount and size of fuels would remain significantly higher than normal for 15 to 25 years. Consequently, desired structural characteristics such as snags and multi-layered canopies would be at a greater risk of loss.

Douglas-fir bark beetles are attracted to freshly killed Douglas-fir trees over approximately 12 inches in diameter. It has been observed that disturbances which produce large numbers of dead trees can cause a population increase of bark beetles and result in infestation of adjacent healthy trees. If all cut trees were to remain within the proposed project area, a high risk of infestation could occur, resulting in the mortality of a large number of green trees. Removal of the cut trees would reduce this risk. (Appendix E).

Leaving large numbers of trees on the ground would affect access by large mammals such as deer and elk which would need to travel through Riparian Reserves to reach streams.

3. The "no action" alternative (Alternative 3) was not selected because the alternative would not meet the objectives outlined in the purpose and need that would manage habitat conditions for understory development; create coarse woody debris now lacking in the riparian reserve areas; and increase diameter growth for achieving future potential coarse woody debris sources more quickly than under current growth conditions.

Public Involvement/Coordination/Consulation

1. Scoping

A description of the proposal was included in the Salem Bureau of Land Management *Project Update* and is mailed in September and December 2000 to more than 1200 individuals and organizations. A letter asking for scoping input on the proposal was mailed on October 11, 2000 to seven adjacent landowners and individuals or organizations who have expressed an interest in management activities in the resource area as a whole or in this drainage. Letters were also sent to the Oregon Department of Forestry, Oregon Department of Fish and Wildlife, U. S. Fish & Wildlife Service, National Marine Fisheries Service, and the Confederated Tribes of Siletz and Grande Ronde.

The following issues concerning the proposed timber sale were identified through scoping and by an interdisciplinary team of natural resource specialists.

Vegetation: Effects on native vegetation and special status/SEIS special attention species and habitats and noxious weeds.

Soils/Fuels: Effects on long-term site productivity as related to soil compaction. Effects on fuel loading and fire risk.

Water/Riparian: Effects on stream flow, channel conditions, water quality and aquatic conservation strategy objectives.

Wildlife: Effects on special status, SEIS special attention and other wildlife species and their habitats.

Fisheries: Effects on fisheries and their habitats.

2. Comment Period

The EA was mailed to approximately 9 agencies, individuals and organizations on March 13, 2001 based on interest during scoping. A legal notice was placed in the *Corvallis Gazette-Times* soliciting public input on the action from March 15, 2001 to April 16, 2001. The South Hammer EA and Finding of No Significant Impact were made available for public review and comment on March 13, 2001.

3. Comments

One comment letter was received from an environmental organization on April 17, 2001. The following summarizes the substantive comments and includes a response where appropriate:

Lack of "Needs Analysis"

The EA does not adequately justify why Riparian Reserves should be harvested. The EA lacks a "needs analysis" in order to attain Aquatic Conservation Strategy Objectives.

As stated on page 1 of the EA, desired vegetation characteristics required for proper Riparian Reserves function include the following: large trees, diverse species of trees and other vegetation, abundant and well distributed mature and understory conifers, mature to late-successional forest characteristics, and large woody debris in the channel and on the floodplain. The South Hammer ID team concluded that the Riparian Reserves stands in the sale area lack many of these characteristics. In addition, they do not meet Aquatic Conservation Strategy (ACS) objectives 1, 2, 8 or 9, all of which require structural and species diversity, as well as down wood and snags in all stages of decay in Riparian Reserves. The proposed density management of approximately 48 acres would be implemented to address these issues. The South Fork Alsea Watershed Analysis Riparian Reserve Treatment Recommendations Update (RRTRU, 5/23/00, pg 5) identified at the watershed level, only 10 percent of BLM land within the South Fork Alsea Watershed consists of two-story stands. The *SFAWA* (pg.79) recommended the evaluation of 1900 acres of dense, single story Douglas-fir stands of which approximately 50 percent would be suitable as high priority stands to improve riparian habitat conditions. The primary goal of the project is to initiate development of an understory. Secondary goals include accelerating tree growth and increasing the snag and down wood component in the stand.

Adverse Environmental Impacts

a) Extreme care must be taken when harvesting on steep sideslopes where yarding of logs could cause soil erosion or mass wasting into streams.

To prevent soil erosion and mass wasting from occurring, stream protection "no-treatment areas" were identified in the field and applied by BLM personnel using protocol (EA, Appendix F) developed by the area hydrologist, biologist and riparian ecologist. As noted in the EA (p.23) high levels of residual slash on yarding corridors would contribute to reducing the accumulation of runoff by deflecting and redistributing overland flow laterally to areas where it would infiltrate into the soil; 2) gentle gradients in this project area provide little opportunity for surface water to flow; 3) no-treatment zones in riparian areas have high surface roughness which functions to trap any overland flow and sediment before reaching streams; and 4) the small size of trees being yarded would limit surface disturbance to minimal levels.

Yarding across streams and road building must be avoided. Road density within the watershed is high and some road closures are in order.

The harvest plan for the sale would restrict all yarding of logs across streams. Approximately 6 yarding corridors would be extended across streams to provide the necessary deflection for achieving one-end suspension of logs being yarded in the partial cut area. All trees necessary to be felled within the yarding corridors located outside the partial cut area would be reserved from harvest.

Road 15-6-9.5 would be temporarily closed following harvest operations of South Hammer. The Transportation Management Plan for this watershed does not presently recommend additional road closures in the watershed at this time.

Alternative 2 which would be the same as Alternative 1 except felled trees would not be removed is intriguing especially on steep slopes above streams.

By leaving a significant number of CWD in decay class 1, Douglas-fir bark beetles would be attracted to the freshly killed Douglas-fir trees over approximately 12 inches in diameter. Disturbances which produce large numbers of dead trees can cause a population increase of bark beetles and result in infestation of adjacent healthy trees. If all cut trees were to remain within the partial cut area, a high risk of infestation could occur, resulting in the mortality of a large number of green trees.

Protection of survey and manage, native non-Douglas-fir tree species, snags and large residual trees and abatement of noxious weeds.

All survey and manage species must be surveyed and protected and all native non-Douglas-fir tree species should be protected.

Management of Survey and Manage Species found as a result of inventories would be accomplished in accordance with the S&M ROD and the S&M FSEIS. One Category B species *(Ramaria aurantiisiccescens)* would be protected by reserving all trees and restricting ground-disturbing activity from the project area. In the EA on page 6 it states "Hardwoods and all conifers, other than Douglas-fir and western hemlock, would be reserved. First priority for removal would be Douglas-fir". We agree all native non-Douglas-fir tree species should be protected and a change in the proposed action will be implemented as follows: hardwoods and all conifers, other than Douglas-fir would be reserved. All native non-Douglas-fir trees would be reserved.

Protection of snags and large residual trees

Protection of existing snags is a design feature as stated on page 7 of the EA. While this design feature allows for some loss of existing snags for safety, operability and access reasons, the anticipated loss of existing snags would be a minor, short-term concern for wildlife habitat (see EA, page 31). Providing for new snags would be accomplished by post-harvest bark beetle kill, harvest activities and post harvest snag creation (see EA page 15). This approach to snag management in young stands targeted for thinning is consistent with the Salem District RMP (1995) and the ROD (1994) which direct prescriptions for snags within partial harvest areas (e.g., commercial thinnings) to reflect the timing of stand development (see Salem District RMP, page 21). Any snags felled would remain on site within the project area as stated on page 7 of the EA. Prior to completion of the termination of the contract, a minimum of 48 trees (about 1 tree per acre) would be killed for snags/down logs, having a DBH greater than or equal to 20 inches (most of these trees are likely to come from corridors or tailhold trees). Within 3 to 5 years after completion of harvest activities, monitoring of harvest and natural mortality recruitment would determine if 3-5 trees per acre are functioning as hard snags/logs (Class 1 or 2) inclusive of the treatment unit and adjacent 100 meters. If monitoring determines there are less than 3 trees per acre, then additional trees (any species) having a DBH greater than 16 inches would be killed for CWD (EA p 7) .

The spread of noxious weeds must be prevented.

As stated in the EA, (p.6) all exposed soil on landing locations would be seeded with Oregon certified (blue tagged) red fescue at a rate equal to 40 pounds per acre. The extent of soil disturbance would be determined in cable yarding corridors at completion of yarding. If warranted for the abatement of any noxious weed infestations, these areas would be seeded. Grass seeding exposed soil areas tends to decrease the establishment of noxious weeds. There is no additional road to be constructed with this project and any adverse effects from noxious weeds are not anticipated.

4. Consultation

The South Hammer timber sale was submitted for Formal Consultation with U.S. Fish and Wildlife Service on August 4,200. Consultation was concluded on October 4,200 (Service Log #1-7-00-F-649). The proposed action is considered a "may affect, but not likely adverse affect" to northern spotted owls and marbled murrelets.

The project area is in the South Fork Alsea River drainage. This watershed has anadromous fish approximately 3.5 miles downstream from the project area. The Biological Assessment (BA), which assessed potential impacts to listed fish in the Oregon Coast ESU was submitted to NMFS in March 2001. A Letter of Concurrence dated April 17, 2001 concluded that the proposed project is " not likely to adversely affect" Oregon Coast Coho Salmon, Oregon Coast steelhead trout and sea-run cutthroat.

5. Conclusion

As Field Manager of the Marys Peak Resource Area I reviewed the record for this proposed timber sale and have decided to implement Alternative 1 of the EA. *Reference attached map.*

A Finding of No Significant Impact was signed on April 24, 2001. The conclusions reached in that document have not changed.

Protest/Appeal Process

The proposal regarding this proposed action will be published in *the Corvallis Gazette Times* on or before August 31, 2001. In accordance with Forest Management Regulations at 43 CFR 5003, a protest of this decision may be made within 15 days of publication (i.e., close of business, September 16, 2001). Protests must be addressed to the Field Manager and can be mailed to Gary Humbard, Bureau of Land Management, 1717 Fabry Road S.E., Salem, Oregon 97306. Upon receiving a timely protest, I will reconsider my decision in light of the statement of reasons for the protest and other pertinent information. I will prepare a written response to the protest(s) and send my response(s) to the protesting party or parties.

Cindy C Enstrom — 8/13/01

Field Manager Marys Peak Resource Area — Date

Cindy Enstrom

March 2, 2001

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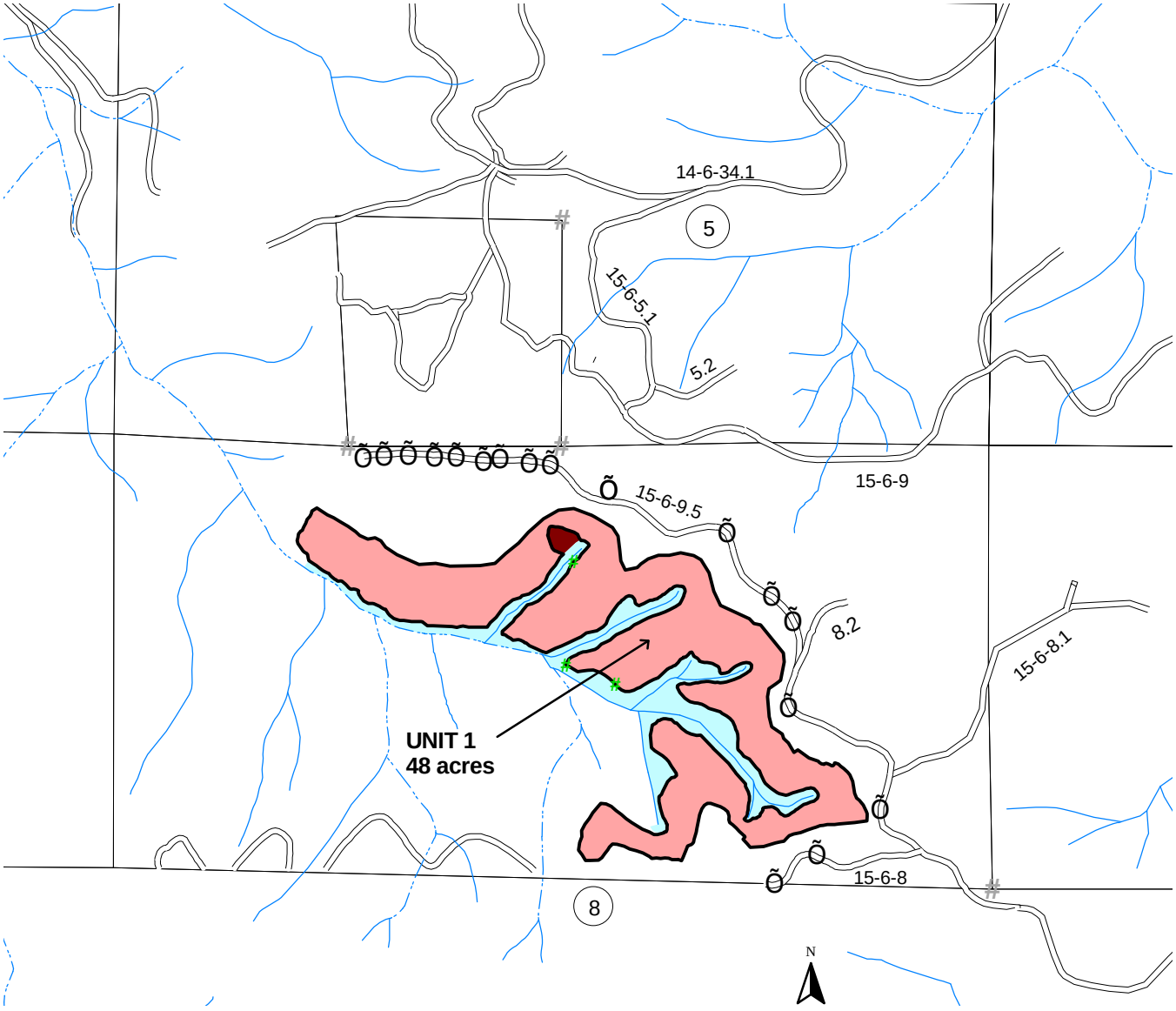
Appendix A
Map 1

South Hammer

T. 15 S., R. 6 W. Section 8 W. M.
SALEM DISTRICT - OREGON



LEGEND

Scale: 1" = 1,000'

- Õ Landing
- # Remnant old growth - single tree
- Partial cut area
- Fungus protection area
- Stream protection area
- Existing Roads
- Fish bearing streams
- Non fish bearing stream
- # Corner found

Map 2

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T. 15 S., R. 6 W., Section 8 W.M. – SALEM DISTRICT – OREGON

SOUTH HAMMER
PROJECT LOCATION MAP

Scale: 1" = 1 mile