

FINAL DECISION DOCUMENTATION and DECISION RATIONALE

South M & M

Environmental Assessment (EA) Number OR080-2003-20

USDI - Bureau of Land Management
Oregon State Office, Salem District, Cascades Resource Area

Township 12 South, Range 3 East, Sections 19 and 30; Willamette Meridian
Linn County, Oregon

Introduction

The Bureau of Land Management (BLM) has conducted an environmental analysis (Environmental Assessment Number OR080-2003-20) for two projects.

- **Project 1** is a proposed timber sale with two action alternatives:
 - Alternative B (Proposed Action) would commercially thin 243 acres in the Matrix land use allocation (LUA) and 29 acres in the Riparian Reserve LUA.
 - Alternative C (Limited Road Construction) would thin the same acres as Alternative B, but would have limited new road construction to 1,000 feet or less. Helicopters would be used to harvest trees off of those acres requiring more than 1,000 feet of new road to access them.No regeneration harvest was proposed in either action alternative.
- **Project 2** is a Transportation Management proposal to decommission 1200 feet of existing rocked road.

A Finding of No Significant Impact (FONSI) was signed on October 20, 2003 and the Environmental Assessment (EA) and FONSI were then made available for public review for 30 days. This decision authorizes the implementation of only those activities directly related to and included within the timber sale (Project 1). My decision is based on site-specific analysis in the Environmental Assessment (EA # OR080-03-20), the supporting project record, management recommendations contained in the Quartzville Creek Watershed Assessment, as well as the management direction contained in the Salem District Resource Management Plan (RMP) dated May 1995. A separate decision will be issued concerning the Riparian Management proposal (Project 2).

Decision

I have decided to implement a modified version of Alternative B (Proposed Action) for the South M & M Project 1, which reduces the impacts of Alternative B as described in the EA, and will hereafter be referred to as the “selected action”. The selected action is shown on the South M & M Timber Sale Exhibit A Map attached to this Decision Rationale. Table 1 shows the crossover between the Contract and EA Units in order to assist in comparing this map to the maps found in the EA.

Table 1 : Crossover between EA and Contract Units

Contract Unit Number (Contract Exhibit A Map)	EA Unit Number (EA Maps)
1	A
2	B, C
3	E
4	C

The next section summarizes the decision and shows how the selected action differs from EA Alternative B.

Summary of the Decision

1. Harvest

- Total thinning area is 207 acres and total volume is 3,120 MBF (5,649 CCF), a 65 acre decrease from the 272 acres described in the EA (see Table 2). All harvest units are in the General Forest Management Area (GFMA), Connectivity or Riparian Reserve land use allocations (LUAs) as described on page 5 of the *Salem District Resource Management Plan* (RMP). The GFMA and Connectivity LUAs are subsets of the Matrix LUA.
 - Portions of units A (18 Acres) and B (25 Acres) are within the Connectivity LUA, for a total of 43 acres.
 - Twenty-three (23) acres of thinning would take place within the Riparian Reserve LUA.
 - The remaining 141 acres of thinning would take place in the GFMA LUA
- Approximately 4 acres will be cleared for seven road rights-of-ways within unit 2.

2. Logging

- Ground based yarding would take place on 124 acres, a seven acre increase from the 117 acres of ground based logging described in the EA. This increase is due to more acres being identified suitable for ground based yarding than previously expected after extensive ground surveys.
- Cable or skyline yarding would take place on 50 acres, a 53 acre decrease from the 103 acres of cable/ skyline logging described in the EA.
- Multiple pass tractor roads would use existing skid roads, where possible.
- Compacted area used by the purchaser (including multiple pass tractor roads, landing area enlarged or constructed by the purchaser, and skyline yarding roads) would be limited to 10 percent of the area on each harvest unit.
- Helicopter yarding would take place on 33 acres, a 19 acre decrease from the 52 acres described in the EA.

3. Road Access

- 9,505 feet of road would be constructed, a 7,995 foot decrease from the 17,500 feet described in the EA. Thirty percent of the 9,505 feet is the reconstruction of old abandoned roads.
- After operations, all newly constructed roads would be blocked.

- Road renovation consisting of blading, shaping and some spot rocking of the existing surface, and brushing, ditch cleaning, culvert cleaning and culvert replacement on 6.1 miles would occur.

4. *Fuels Treatment*

- All landing piles and miscellaneous piles remaining after other operations are complete would be covered and burned.
- Slash and debris within 125 feet of roads 12-3E-29, -30.0, -30.1, & -30.2 would be piled, covered and burned.

5. *Blocking Skid Roads*

- After operations, main skid roads would be blocked.

6. *Design Features and Mitigation Measures*

- All design features and mitigation measures described in the EA (pp. 7-11) have been incorporated into the timber sale contract.

7. *Compliance with Direction*

- This project is subject to the following documents, which direct and provide the legal framework for management of BLM lands within Cascades Resource Area: **1/** *Salem District Record of Decision and Resource Management Plan*, May 1995 (RMP), as amended; **2/** *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl*, April 1994 (NWFP); and the **3/** *Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl*, March 2004 (SSSP). This project complies with the management goals, objectives, and direction (e.g. standards and guidelines) of the above documents. Other documentation guiding this action includes the *Quartzville Creek Watershed Analysis* (September, 2002). All of these documents may be reviewed at the Cascades Resource Area office.

Alternatives Considered

Alternatives and Additional Project Dropped From Detailed Analysis:

Several Alternatives were considered when the EA was being developed. A description of these is in the EA on pages 11 and 12.

Alternatives Considered in Detail:

The EA analyzed the effects of Alternative B (proposed action), Alternative C (limited road construction), and the No Action alternative. A description of these alternatives can be found in Chapter II of the EA (EA p. 5- 12).

Table 2: Comparison of Selected Parameters

Comparison of Selected Parameters		Acres by Alternatives			
		A (No Action)	B (Proposed Action)	C	Selected Action
Land Use Allocation	GFMA	0	183	183	141
	Connectivity	0	60	60	43
	Riparian Reserve	0	29	29	23
Cutting Type	Regeneration Harvest	0	0	0	0
	Commercial Thin	0	243	243	184
	Riparian Thin	0	29	29	23
Logging System	Tractor	0	117	99	124
	Skyline/ Cable	0	103	46	50
	Helicopter	0	52	127	33
Landings & Road Construction (Acres)		0	10.0	5	4
Feet by Alternatives					
Road Construction (Feet)		0	17,500	1,000	9,505

Reasons for the Decision

Considering the content of the EA and supporting project record, the management direction contained in the RMP and Survey and Manage ROD, and public comment, I have decided to implement the selected action as described above. My rationale for this decision follows:

1. The selected action, modified Timber Management Alternative B, addresses the identified purpose and need for action (EA p. 3) in that it would:
 - Contribute toward District timber management goals and local economic diversity (RMP 1, 48).
 - Manage these timber stands on Matrix lands for a sustainable supply of timber and other forest commodities for future harvest and other management options.
 - Improve stand diversity and structure, maintain canopy closure, and provide for other resource values.
 - Increase stand diversity and structure of forest stands in portions of the Riparian Reserve to meet ACS habitat objectives.
 - Manage stands in Connectivity to contribute to the goal of developing older forest conditions.

2. In addition, the selected action:
 - Offers an economically viable sale.
 - Reduces the amount of road construction analyzed in the EA to only that which can be constructed with minimal impacts.
 - Maintains the existing transportation system.

3. Timber Management Alternative C was not selected for the following reasons: Alternatives B and C have similar resource effects (EA pp. 16-47). Furthermore, in developing the selected action, the following was dropped from EA Alternative B:
- 65 overall thinning acres,
 - 6 acres associated with landings or road construction,
 - 7,995 feet of road construction, and
 - 37 acres of suitable owl habitat of which 19 acres is suitable owl nesting habitat.
- Due to the above changes, the resource effects associated with landings and road construction (acres) for the selected action are anticipated to be similar or less than Alternative C (see Table 2). In light of this, how well the alternatives meet the purpose and need for the project became the deciding factor. Alternative C does not meet the purpose and need for an economically viable timber sale as well as the modified Alternative B due to higher logging costs associated with helicopter yarding.
4. The No Action alternative was not selected for the following reasons:
- The No Action alternative would not contribute to the immediate supply of timber (EA p. 38) to contribute to local and State economic diversity (Purpose and Need, EA p. 8)
 - The No Action alternative would leave the long term timber producing capability on the project area unchanged (EA p. 38) rather than maximizing average annual growth.
 - Under the No action alternative, the stands would continue to grow but at a reduced rate (EA p. 25). These units would become more single storied as suppressed trees in the lower canopy levels die out. Individual tree growth would slow down. Less light would reach the forest floor, reducing the quantity and diversity of understory vegetation.
 - Due to past management in these stands, much of the material that would have developed into snags and CWD has been removed. Deferring snag creation and topping treatments would preclude an opportunity to create more standing dead, CWD, and tree deformities in future stands.

Public Involvement/ Consultation/Coordination

Scoping: The project first appeared in the July 2002 edition of the Salem District Project Update newsletter, and as well as in the following editions (March 2003, October 2003, March 2004, June 2004), which were mailed to over 1,000 addresses. A scoping letter dated April 25, 2003 was sent to 38 potentially affected and/or interested individuals, groups, and agencies. Comments were received from sixteen individuals/agencies.

EA Comment Period and Comments: The EA was made available on the Internet and notices were mailed on October 20, 2003 to approximately 41 agencies, individuals and organizations. A printed copy of the EA was mailed to approximately 8 agencies, individuals and organizations, also on October 20, 2003. A legal notice was placed in local newspapers soliciting public input on the action October 20, 2003. One letter from an individual was received and one letter was received from an organization during the EA comment period. The BLM response to substantive comments can be found in Appendix A of this Decision Rationale.

Consultation/Coordination: The South M &M proposal was submitted for Formal Consultation with U.S. Fish and Wildlife Service (USFWS) on September 3, 2002. Consultation with the USFWS resulted in a "May Affect, and is Likely to Adversely Affect" Determination for the northern spotted owl (See S M&M FONSI – EA p. vi). The selected action would follow all applicable terms and conditions from the Biological Opinion dated February 27, 2003 [BO# 1-7-00-F-0008].

Conclusion

I have determined it is not necessary to change to the Finding of No Significant Impact (FONSI – October 20, 2003) for the South M &M Timber Sale for these reasons:

- The South M &M, EA, along with additional information contained in this document, fully covers the project. There are no significant new circumstances or facts relevant to environmental concerns and bearing on the modification to the proposed action or its impacts, which were not addressed in the EA.
- The action is within the scope of the alternatives identified in the original EA, and the environmental impacts are within those described in the original EA and are less than or the same as those anticipated for the proposed action in that assessment.

Protests: In accordance with Forest Management Regulations at 43 CFR 5003.2, the decision for this timber sale will not become effective or be open to formal protest until the Notice of Sale is published "in a newspaper of general circulation in the area where the lands affected by the decision are located". Protests of this sale must be filed within 15 days of the first publication of the notice. For this project, the Notice of Sale will be published in the Albany Democrat Herald on or around June 30, 2004. The planned sale date is July 28, 2004.

Contact Person: For additional information, contact Randy Herrin (503-315-5924), Jim England (503-315-5913) or Rudy Hefter (503-315-5931), Cascades Resource Area, Salem BLM, 1717 Fabry SE, Salem, Oregon 97306.

Approved by: Belle Smith, Acting
Cindy Enstrom, Field Manager
Cascades Resource Area

June 30, 2004
Date

Appendix A: South M & M Response to Comments

Two writers provided comments in regards to the South M & M Environmental Assessment. Those comments are summarized and responded to below. The complete text of the offered comments are available in the South M & M EA file. The comments have been paraphrased and are shown in bold type. BLM’s responses are shown in italics.

- 1. Roads are conduits for invasive weeds. New roads are highly disturbed sites that are highly susceptible to invasive weed colonization, even if the equipment used to operate on them is effectively cleaned. What invasive weeds are currently on the roads in the project area? The EA does not disclose this information.**

The project area was surveyed for non-native invasive weeds during the initial surveys for vascular plants with survey results described on page 28 of the EA. The new roads would be seeded with native grasses at the end of the project and monitored for all non-native invasive plants.

- 2. In the brief cumulative effects section on the road construction planned in the preferred action, the BLM makes it sound that there will be little impact on the road density in the entire Quartzville watershed. Cumulative effects analysis should take place over multiple scales, not just a large watershed scale. Three new miles of new road construction will have a large impact on road density on a subwatershed scale, given the current, past, and foreseeable future projects in the area.**

With regard to road densities, the 5th field watershed scale was selected because the Quartzville watershed analysis was completed at that scale and the watershed analysis provides most of the available baseline data for this area.

The commenter did not provide evidence that three miles of road construction have a large impact on road densities on the subwatershed scale. The South M & M project falls into two subwatershed basins, Moose Creek and Whitcomb Creek. Changes in road densities for these subwatershed basins as a result of planned actions are summarized in Table 3.

Table 3: Road Densities by Subwatershed

Subwatershed Basin	Acres	Roads (miles)		Total	Road Density Miles/Section		
		Existing	Planned		Existing	Future	Increase
Moose Ck.	16202	102.28	0.55	102.83	4.04	4.06	0.02
Whitcomb Ck.	15002	106.42	1.25	107.67	4.54	4.59	0.05

As can be seen above, when viewed on a subwatershed level, the planned new road construction does not have a large impact. It should also be noted that since these new roads would be blocked after operations are completed; there would be no change in open road densities.

- 3. Alternative B builds 17 times more road than Alternative C in order to avoid helicopter logging on 75 acres. Since a helicopter will be required under either alternative the cost per acre of helicopter yarding will be less under alternative C.**

The writer is correct that the helicopter yarding cost per acre would be less under Alternative C. It is not appropriate, however, to look just at the cost per acre of one aspect of the entire project. To compare financial costs between alternatives, it is necessary to look at the complete package for both alternatives. This would include analyzing tractor and cable yarding as well as helicopter yarding, move in for all equipment, road and landing construction, and maintenance and log hauling costs. We have done this and have learned that although the cost of helicopter yarding in Alternative B is \$515 per acre more than it is for Alternative C, the total project cost for Alternative B is \$608 per acre less than Alternative C.

4. Skyline corridors in riparian reserves can serve as pathways to deliver sediment laden water towards streams. The skyline corridors that can assist in sediment delivery in these units lead up to new road construction.

Yarding corridors where logs are fully suspended would not produce or enhance sediment delivery over adjacent lands. On South M & M, yarding corridors are designed so that the leading end of the logs being yarded would be suspended in the air. Utilizing lift trees at the back end of the yarding corridors would allow good suspension in the lower half of the corridor. There are significantly fewer logs that are moved along the lower half of the corridor as well. All of this reduces the impact on the soils, reduces the development of channels to deliver sediments and maintains a wider area to filter out sediments before they reach streams.

The writer presents no specific information where sediment is likely to enter a stream. They also provide no evidence that the design features or mitigation measures are inadequate.

5. Ripping out a road is NOT equal to never building a road to begin with. Even though ripped roads increase water infiltration over un-ripped roads, it does not restore the forest to a pre-road condition.

It is unclear exactly what the writer intends with this comment. The EA does not propose ripping any of the new road construction. Rather, the EA proposes that the new construction be blocked after use. In EA section 2.2.2 Project 2 – Road Management, EA, pg 6, 1200 feet of existing road are identified for decommissioning. These are roads that are not planned to be part of the proposed timber sale. Although the term “ripping” is not used in the project description the EA ,pg 9, does say that roads to be decommissioned would be decompacted.

6. The new roads convert 10 acres of critical dispersal and suitable habitat into non-forest habitat, as well as fragment many more acres of forest land. These impacts are clearly adverse modification. Destroying habitat in a Critical Habitat Unit will “appreciably diminish the value of critical habitat” as it relates to the species’ recovery.

The ten acres of road surface area is spread out over several locations and are arranged in long but very narrow strips. Furthermore, the ten acres of road area are surface acres.

This is important to keep in mind while understanding that this area is a Critical Habitat Unit for the northern spotted owl, which is an arboreal species. Due to the spreading canopies of the trees lining the roads, the effective amount of canopy area impacted by the road construction is likely to be far less than the ten acre surface area. The reason for thinning this area is to create larger trees and as the remaining trees respond to the thinning; their canopies would close and negate the impact of these roads to the owl.

The definition of what constitutes “adverse modification” and whether or not the action “appreciably diminishes the value of critical habitat,” is not a matter of opinion. It is a legal determination that the U.S. Fish and Wildlife Service makes during the formal consultation process (CFR 50, Part 402-Interagency Cooperation-Endangered Species Act of 1973, as amended; 402.02, 402.14(h)(3)).

*The USFWS has made the determination that all of the planned actions (including South M&M) in the Willamette Province for fiscal years 2003 and 2004 will not result in adverse modification. In **Formal and Informal Consultation on Fiscal Year 2003-2004 Routine Habitat modification Projects within the Willamette Province** [Habitat Modification Biological Opinion (BO) – FWS reference: 1-7-03-F-0008], it states “The Service reached the conclusion in this BO that the FY 2003-2004 Habitat Modification Projects in the Willamette Province are not likely to jeopardize the continued existence of the bald eagle or spotted owl and is not likely to destroy or adversely modify critical habitat for the spotted owl (pg. 1).”*

South M&M is a thinning, located on matrix lands. Approximately 84 acres of suitable habitat and 178 acres of dispersal habitat would be affected in Alternatives B and C. The selected action affects 47 acres of marginally suitable, 172 acres of dispersal (219 gross acres). Gross acres include 4 acres R/W (1 acre suitable, 2 acres dispersal, and 1 acre non habitat) and 8 acres of Green Tree Retention (4 acre suitable, 4 acres dispersal) for 207 net acres. All 19 acres of suitable nesting habitat were dropped from the proposal.

- 7. The EA must disclose the effects of the three miles of new roads with the effects of the helicopter landings constructed for Alternative B. From the maps, it appears that the locations of the helicopter landings are the same in both alternatives.**

The effects of the road construction and helicopter landing construction are disclosed for both alternatives (EA pp. 19-20, 31-44). The same helicopter landings appear on the maps for both alternatives because any of the landing sites shown on the maps could be used for either alternative. The difference between the alternatives lays in the fact that under alternative B fewer of the possible landing locations would be used, while under alternative C, potentially all of the landing sites could be used.

- 8. All existing snags and old growth trees must be retained. This retention should not cause much in the way of operational challenges, as few snags will need buffers. We therefore urge you not to manage for these critical features of forests by caveat. While safety of forest workers is absolutely critical, the BLM can just buffer snags from activities that involve workers, then all ecologically important snags can be protected. The BLM must consider this as an alternative to their proposed “management by caveat.”**

It is a goal of this project to retain all snags and old growth trees while providing for worker safety (EA p. 11). Although from the EA description it may appear that these features are protected simply by the statement that they are not planned to be cut, in actuality, the protections are far more specific.

Each tree authorized to be cut is required to be marked with blue paint by the BLM. Any tree not so marked is specifically reserved from cutting. Snags and old growth trees are specifically described as not being available for inclusion in the sale. Generally speaking, it is assumed that loggers can safely work around existing snags unless otherwise noted. In those instances where a logger believes a snag to be a safety hazard, a BLM representative also is required to inspect the snag in question and make a determination as to the safety of operations around the snag and the best course of action to both protect the snag and the workers and allow the operations to go forward. This is hardly “management by caveat”, instead, it is site specific and detail oriented with the cutting of snags and old growth trees the exception rather than the rule.

Any snags which are felled would be retained on site as CWD, which is also valuable as wildlife habitat. There are 86 vertebrate species associated with CWD, of which, 58 are associated exclusively with CWD for their life history requirements (Rose et al). Furthermore, with the location of unit boundaries, the acres that have been removed from the proposal since the EA was written, and the planned helicopter and tractor yarding, we have determined that retention of most of the snags and all of the old-growth trees are feasible.

9. In addition to retention of existing snags, it is important to create more in stands deficient in them. We note that in riparian reserves, BLM plans to base or top girdle up to 4 large conifers per acre in riparian reserves (5). These treatments are appropriate in upland forests as well.

In the thinning units of this proposal, we are planning to leave 80 to 200 green trees per acre which is adequate to meet snag recruitment needs in future stands. In addition, the proposed action calls for topping up to two green trees per acre on the upland portions of the project area, EA, pg 11. With regards to snag or legacy features, the goal of thinning prescriptions is to leave enough trees standing so that when a regeneration harvest is prescribed there are adequate numbers of trees available to meet the requirements of the RMP.

10. Variable Density thinning treatments are very appropriate in simplified, dense mid-seral stands. We agree with the objectives listed on pg. 27 for the riparian reserves, but we see no clear guidelines for how you are going to accomplish this. We have seen a lot of different prescriptions for VDT and some seem to be designed to promote diverse and complex stands but others are essentially thinning from below. While we recognize the need to release dominant and co-dominant trees, there is also a need to get some variability in spacing between and among stands treated with this method. We recommend treating small, adjacent patches (.5 to 1 acre in size) in very different ways—releasing large trees with .25 acre gaps around them, thinning areas to low, medium and high residual densities, and leaving other areas unthinned.

The Implementation Plan, which is part of the Riparian Reserve silvicultural prescription, contains the Treatment Scenario, Marking Guidelines, and Design Features (EA p. 5).

11. Both writers either state or imply that the new road construction will be temporary and the roads decommissioned after logging.

After harvest treatments, all new roads are to be blocked and not open to vehicular traffic, EA page 6. The only roads planned for decommissioning are those existing roads described in EA section 2.2.2, page 6 and are independent of any proposed timber harvest.

Literature Cited:

Rose, Cathy et al. USFS Wildlife-Habitat Relationships in Oregon and Washington, Chapter 24. *Decaying Wood in Pacific Northwest Forests: Concepts and Tools for Habitat Management*