

## **Beeline Thinning Timber Sale**

Final Decision and Decision Rationale  
August 2009

United States Department of the Interior  
Bureau of Land Management  
Oregon State Office  
Salem District  
Cascades Resource Area

T. 5 S., R. 4 E. Sections 3, 10, 17 and 21; WM.  
Environmental Assessment Number (EA) # OR080-06-06 (Beeline/McDowellCreek EA)  
Lower Clackamas, Lower and Upper Molalla 5<sup>th</sup> field Watershed.  
Clackamas County, Oregon

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**BLM/OR/WA/AE-009/065-1792**

## 1.0 Introduction

The Bureau of Land Management (BLM) has conducted an environmental analysis for the Beeline thinning project, which is documented in the *Beeline/McDowell Creek Thinning Environmental Assessment and Finding of No Significant Impact*, # OR080-06-06 (EA), and the associated project file. This EA is incorporated by reference in this Decision Rationale (DR). The decision maker signed a Finding of No Significant Impact on March 20, 2007 and the BLM then made the EA available for public review from March 21, 2007 to April 20, 2007 (see *DR section 6.0*). Comments received during the public review period are addressed in DR section 11.0.

In the EA, BLM analyzed a proposal to thin 45-55 year old mixed conifer stands within the General Forest Management Area (GFMA) portion of the Matrix Land Use Allocation (LUA), and the Riparian Reserve LUA (1995 RMP). The project is located within T. 5 S. R.4E., sections 3, 10, 17, and 21, WM.

## 2.0 Decision

I have decided to implement a timber sale consisting of all units of the Beeline Project Area proposed action as described in the EA (EA pp. 16-17) with modifications described in this DR. The timber sale will be called Beeline Thinning.

This decision is based on site-specific analyses in the EA described above, the supporting project record, public comment, and management recommendations contained in the Upper Clear Creek [1995] and Clear Creek Foster Creek [2002], the Upper Molalla River [1999], and the Lower Molalla River and Milk Creek Watershed Analyses [2004], as well as the management direction contained in the Salem District Resource Management Plan (May 1995) as amended, which are incorporated by reference in the EA and DR. The following is a summary of the decision, hereafter referred to as the “selected action”. DR Table 6 displays the crossover between unit numbers in the proposed action and the selected action. The selected action will:

### **Timber Harvest**

Harvest approximately 392 acres (DR Table 6). This harvest includes:

- Thinning 390 acres within the following Land Use Allocations (LUAs)
  - 356 acres within the General Forest Management Area (GFMA) portion of the Matrix LUA (Upland Thinning in DR Table 6),
  - 34 acres within the Riparian Reserve LUA (Riparian Thinning in DR Table 6);
- Clearing approximately 2 acres of vegetation within the road right-of-way accessing unit 3 within the GFMA LUA.

### **Logging Systems**

- Harvest approximately 251<sup>1</sup> acres (Units 1, 2, 3, 5, and 7) using a ground based system.
- Harvest approximately 141 acres (Units 2, 3, 4, 6, and 7) using a skyline based yarding system.

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<sup>1</sup> The logging systems described in the EA proposed action were transposed in EA Table 3 (EA pp. 16). The table should have read 240 acres ground based and 170 acres skyline.

**Road Work and Haul**

- Construct approximately 0.1 miles of natural surface temporary road to accommodate skyline logging equipment and log transport. Block (typically with trench and berm barricade) and stabilize new construction after logging operations.
- Renovate and maintain approximately 23 miles of existing road. Renovation may include blading and shaping of roadway and ditches, small slide/slump repairs, clearing brush from cut and fill slopes, cleaning or replacing culverts, and applying rock surfacing material to depleted surfaces.
- Stabilize 2.6 miles of existing roads with water bars or other surface shaping, sediment traps, or other techniques to prevent erosion; and seed and fertilize with native plants and trees. Culverts and the subgrade would be left intact.
- *Culverts:* Replace 26 culverts (878 linear feet) at intermittent stream crossings.

**Fuels Treatments**

- Lop and scatter approximately 28 acres (cut logging slash and debris into smaller pieces and disperse evenly throughout unit).
- Machine treat approximately 31 acres.
- Directionally fall approximately 19 acres.
- The potential alternative fuel treatment is to hand or machine pile, cover and burn approximately 78 acres.
- Pile and cover all tops, broken pieces, limbs and debris over 1 inch diameter and longer than 3 feet within 30 feet of the edge of each landing. Piles will be 20 feet minimum distance from residual trees. Piles will be burned after thinning has occurred and fall rains have begun.

**Controlling Public Access**

After logging operations have been completed, the contractor will block access to skid trails by leaving logging debris to prevent Off Highway Vehicles (OHVs) from driving on skid trails.

**Design Features**

Project Design Features to be implemented will be included in the timber sale contract. These design features are first described in the EA, section 2.2.3 (pp. 21-24). A summary of these project design features are described in DR section 10.0.

**Table 1: Summary of the Selected Action**

Timber Harvest (Acres)	Commercial Thinning (DR Table 6)	General Forest Management Area (GFMA) LUA (Matrix)	All Units	356
		Riparian Reserve LUA	3, 4, 5, 6, 7	34
	Road Right of way clearing		3	2
	Total Acres			392
Logging System (Acres)	Ground-Based <sup>2</sup>		1, 3, 4, 5, 6, 7	251
	Skyline		2, 3, 4, 6, 7	141

<sup>2</sup> Includes 2 acres of road right-of-way clearing

Action		Units	Total
Road Work	Natural Surface Temporary Road (miles) Decommissioned after harvest operations	3	0.1
	Road Improvement (miles)		0
	Road Renovation/ Road Maintenance (miles)		23
	Culverts - Installation (Linear feet)		178
	Culverts - Installation (# of culverts)		5
	Culverts - Replacement (Linear feet)		878
	Culverts - Replacement (# of culverts)		26
	Gates Install (#)		0
	Road Stabilization (miles)		2.6
Trench and berm road blocks (#)		6	
Fuels Treatment (acres)	Lop and scatter	1, 2, 3, 4, 5, 6	28
	Machine treatment	1, 2, 3, 4, 5, 6	31

### 3.0 Alternatives Considered

1. No Action - No timber harvest or connected actions would take place.
2. The Proposed Action: The Beeline Thinning Project in the Beeline/McDowell Creek Thinning EA (EA# OR080-06-06) is a proposal to thin mixed-conifer stands with an average age ranging from 45-55 years (EA Table 16, p. 69; DR Table 6). Within the General Forest Management (GFMA) portion of the Matrix LUA, units would be thinned by removing suppressed, co-dominant, and occasional dominant trees (thinning from below), leaving residual overstory trees at a uniform stocking level. Generally, the largest trees would be left. Within units in the Riparian Reserve LUAs, up to ten percent of the treatment area would be left in unthinned patches, small gaps (up to one acre in size, retaining up to 20 trees per acre) would be created in 5 – 15 percent of the treatment area, and the remaining area would be thinned, generally leaving the largest trees (EA pp 16).
3. Selected Action: The Selected Action implements the Proposed Action, with modifications: an addition of 0.1 miles of natural surface temporary new road construction to accommodate skyline logging equipment and log transport and a reduction in acreage due to final boundary location and accurate mapping (DR Table 6, Maps – DR section 9.0). The variable density prescription described on page 16 of the EA applied to the McDowell Creek project. Therefore, it is not included in the selected action.

DR Table 2 shows how the Selected Action meets the purpose and need of the project as compared to the no action and any other EA action alternatives. This table is a summary of the table found in section 3.4 (Table 14) of the Beeline/McDowell Creek Thinning EA.

**Table 2: Comparison of the Alternatives with Regard to the Purpose of and Need for Action**

<b>Purpose and Need (EA Section 1.2)</b>	<b>No Action</b>	<b>Proposed Action and Selected Action</b>
Maintain the health and growth of developing stands.	Does not fulfill. Stand health and tree growth rates would decline if stands are not thinned. Competition would result in mortality of smaller trees and some co-dominant trees in the stands.	Fulfills. Stand health and tree growth rates would be maintained as trees are released from competition.
Achieve a desirable balance between wood volume production, quality of wood, and timber value at harvest (RMP p. D-3).	Partially fulfills. Partially meets wood volume production over course of rotation. Logs at end of rotation would be smaller diameter which generally reduces value compared to thinned stands.	Fulfills. Maintains volume production throughout the rotation (management cycle) of the stand. Lengthens the rotation so that logs at end of rotation would be larger diameter.
Provide a sustainable supply of timber as described in the RMP (p. 1, 46, 47).	Does not fulfill. Provides no timber at this time.	Fulfills. Provides timber at this time and in a sustainable manner.
Develop timber sale (s) that can be successfully offered to the market place.	Does not fulfill. Does not develop a timber sale.	Fulfills. Develops timber sale(s) that would be viable.
Retain elements that provide ecosystem diversity (snags, old growth trees, etc.) so that a healthy forest ecosystem can be maintained with habitat to support plant and animal populations (RMP p. 1, 20).	Partially fulfills. Retains existing elements.	Fulfills. Retains the elements described under “no action” on untreated areas of the stands in the project areas and encourages development of larger diameter trees and more open stand conditions in treated areas. This adds an element of diversity to the landscape not provided on BLM lands as soon under the No Action alternative.
Develop future large coarse woody debris, snag habitat, in-stream large wood and other elements of late-successional forest habitat. (RMP p.1)	Fulfills, but not as soon. Trees would continue to grow slowly until reaching suitable size.	Fulfills. Would develop large trees that could become high value CWD 10-30 years sooner by concentrating stand growth on fewer stems.
Develop structural and spatial stand diversity on a landscape level in the long term.	Fulfills by maintaining current trends that would develop diversity slowly.	Fulfills by accelerating changes in some parts of some stands to develop more elements of diversity faster.
Provide appropriate access for timber harvest, silvicultural practices, and fire protection vehicles.	Fulfills. The basic road network exists and most of the roads can be used.	Fulfills. Existing roads would be maintained for travel and culvert upgrades would reduce potential for crossing failures.

<b>Purpose and Need (EA Section 1.2)</b>	<b>No Action</b>	<b>Proposed Action and Selected Action</b>
Reduce potential human sources of wildfire ignition by controlling access.	Partially fulfills. Unauthorized OHV trails would continue to provide access to potential ignition sources away from roads.	Fulfills. Potential ignition sources created by logging would be mitigated where public access is available. Fewer unauthorized OHV trails would be accessible.
Reduce adverse environmental effects associated with identified existing roads within the project areas (RMP p. 11).	Fulfills. No active problems have been identified for any existing roads.	Fulfills. In addition to maintaining roads to prevent development of adverse effects associated with roads, culvert upgrades would reduce potential for catastrophic failure of stream crossings in high flow events.

#### 4.0 Decision Rationale

Considering public comment, the content of the Beeline/McDowell Creek Thinning EA and supporting project record, the management recommendations contained in the Lower Clackamas and Lower/Upper Molalla Watershed Analysis, and the management direction contained in the RMP, I have decided to implement the selected action as described in DR section 2.0. The following is my rationale for this decision.

1. Selected Action: The selected action implements the Beeline Project described in the EA. The Selected Action:
  - Meets the purpose and need of the project section 1.2, as shown in DR Table 1.
  - Complies with the Salem District Record of Decision and Resource Management Plan, May 1995 (RMP) and related documents which direct and provide the legal framework for management of BLM lands within the Salem EA section 1.3, pp. 13-15, as modified by DR section 5.0.
  - Is responsive to concerns for an economically efficient project.
  - Is responsive to public input (e.g. road renovation/maintenance).
  - Will not contribute to the expansion of invasive/nonnative weed populations.
  - Will not have significant impact on the affected elements of the environment (FONSI, EA section 3.1, Tables 8 and 9, pp. 26-27) beyond those already anticipated and addressed in the 1994 RMP EIS.
  - Uses the minimum transportation system to facilitate implementation of the project.
  - Will have no effects on ESA listed fish in Molalla River and Clackamas River (EA p.39).
  - Is not expected to adversely affect northern spotted owl (DR section 6.0).
  
2. The Proposed Action:
  - Beeline/McDowell Creek Thinning EA – Beeline Project Area: Units within the Lower Clackamas, Lower Molalla and Upper Molalla<sup>5th</sup> field watersheds (EA pp. 9) have been incorporated into the selected action. The proposed action was not selected because of changes as a result of additional field work. These changes are described in the Selected Action under alternatives considered. See also DR Table 6.

3. No Action:

- This alternative was not selected because it does not meet the Purpose and Need directly, or delays the achievement of the Purpose and Need (Beeline/McDowell Creek Thinning EA section 1.2), as shown in DR Table 2.

## 5.0 Compliance with Direction

On July 16, 2009 the U.S. Department of the Interior, withdrew the Records of Decision (2008 ROD) for the Western Oregon Plan Revision and directed the BLM to implement actions in conformance with the resource management plans for western Oregon that were in place prior to December 30, 2008.

Since project planning and preparation of National Environmental Policy Act documentation for this project began prior to the effective date of the 2008 ROD, this project had been designed to comply to the land use allocations, management direction, and objectives of the 1995 Salem District resource management plan (1995 RMP), as amended.

The analyses documented in the Beeline/McDowell Creek Thinning EA are site-specific and supplements and tiers to the analyses found in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS). This project has been designed to conform to the *Salem District Record of Decision and Resource Management Plan*, May 1995 (RMP) and related documents which direct and provide the legal framework for management of BLM lands within the Salem District (EA pp.13-15). Compliance with the current direction for the Aquatic Conservation Strategy has been updated and is described in this section of the DR. All of these documents may be reviewed at the Cascades Resource Area office.

### **Former Survey and Manage Species Review**

Surveys for former Survey and Manage species and protection for known sites are no longer required because the Secretary of Interior removed the Survey & Manage Mitigation Measure Standards and Guidelines from the BLM's Resource Management Plans in the area of the Northwest Forest Plan (2007 SM ROD). The Beeline Thinning project was proposed prior to the signing of the 2007 SM ROD, when the BLM was under the August 1, 2005, U.S. District Court order in Northwest Ecosystem Alliance et al. v. Rey et al. which found portions of the January 2004 *Final Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines* (2004 SEIS) inadequate. Subsequently in that case on January 9, 2006, the Court ordered BLM to set aside the 2004 SEIS and reinstate the January 2001 *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (2001 ROD), including any amendments or modifications in effect as of March 21, 2004.

This project also meets the October 11, 2006 U.S. District Court order (Northwest Ecosystem Alliance et al. v. Rey et al.) that provided for certain exemptions from the Survey and Manage requirements including thinning projects in stands less than 80 years old. Accordingly, all of the units in the selected action are under 80 years of age and fall within the October 11, 2006 exemptions from the Survey and Manage requirements (EA pp. 5, DR pp. 3).

**Botanical Species Status Review:**

A population of *Bridgeoporus nobilissimus*, a Bureau Special Status (bureau assessment) saprobic fungi species was found in units 3, 5 and 7. Each of the fruiting bodies of the fungus has been identified and will be protected under terms of the timber sale contract (EA pp. 31).

**Aquatic Conservation Strategy Update**

On March 30, 2007, the District Court, Western District of Washington, ruled adverse to the US Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA-Fisheries) and USFS and BLM (Agencies) in *Pacific Coast Fed. of Fishermen’s Assn. et al v. Natl. Marine Fisheries Service, et al and American Forest Resource Council*, Civ. No. 04-1299RSM (W.D. Wash)( PCFFA IV). Based on violations of the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA), the Court set aside:

1. the USFWS Biological Opinion (March 18, 2004 ),
2. the NOAA-Fisheries Biological Opinion for the ACS Amendment (March 19, 2004),
3. the ACS Amendment Final Supplemental Environmental Impact Statement (FSEIS) (October 2003), and
4. the ACS Amendment adopted by the Record of Decision dated March 22, 2004.

Previously, in *Pacific Coast Fed. Of Fishermen’s Assn. v. Natl. Marine Fisheries Service*, 265 F.3d 1028 (9th Cir. 2001)(*PCFFA II*), the United States Court of Appeals for the Ninth Circuit ruled that because the evaluation of a project’s consistency with the long-term, watershed level ACS objectives could overlook short-term, site-scale effects that could have serious consequences to a listed species, these short-term, site-scale effects must be considered.

The following paragraphs show how the Beeline thinning project meets the Aquatic Conservation Strategy in the context of PCFFA IV and PCFFA II.

***Existing Watershed Condition***

The Beeline Thinning project area is located in the Lower Molalla River, Lower Clackamas River and Upper Molalla River 5<sup>th</sup> field watersheds. Tables 3-5 describe existing watershed conditions in each watershed

**Table 3: Lower Molalla River Watershed - Lower Molalla River and Milk Creek WA, 2004**

<b>Lower Molalla River (LMR) Watershed</b>		
<b>Sub-Watershed</b>	<b>Canyon Creek</b>	<b>Headwaters Milk Creek</b>
<b>Beeline Units within this watershed</b>	96 acres of EA unit 21a (unit 7) EA Unit 21b (unit 6), 54 acres 84 acres of EA unit 17a (unit 5) 234 acres or 60% of the Beeline Thinning acres	21 acres of EA unit 17a (unit 5) or 5% of the Beeline Thinning acres

<b>Lower Molalla River (LMR) Watershed</b>		
<b>Sub-Watershed</b>	<b>Canyon Creek</b>	<b>Headwaters Milk Creek</b>
<b>Events contributing to current conditions</b>	Early inhabitants of this area used fire as a management tool throughout the area for hunting and gathering. Since then road building, agriculture, wildfire, mining, timber harvest and sprawling communities have continued to contribute to the changing landscape. The dominant land use in the watershed is rural residence which makes up 45% of the watershed and agriculture which makes up 25% of watershed. Other uses include; commercial forestry which makes up 19% of the watershed and urban areas (1%) (WA pp.39).	
<b>Ownership</b>	Most of the watershed is privately owned, with small, scattered BLM in-holdings. Owing to their dominance within the watershed, forestry and agricultural activities have likely had the largest effect on water quality, hydrology, and fish populations within the watershed. (WA p. 5)	
	2% of the subwatershed is in Federal ownership	Less than 1% of the subwatershed is in Federal ownership
<b>Aquatic Habitat Conditions and Limiting Factors</b>	Generally, streams within the project area are moderate to high-gradient (4-10%), confined, boulder dominated channels with well-vegetated, stable banks. Streams are generally well shaded by closed canopies provided by coniferous and deciduous trees (EA p. 37, 70. WA p. 20, 35). Resident fish only within the thinning units.	
<b>Riparian Reserve Vegetation (federal lands)</b>	2% non-forest, 1% open/grass/forb, 29% open sapling/brush, 49% closed sapling, 19% mature, no old-growth. LMR Terrestrial Report p. 4	
<b>Vegetation Cover and Condition (federal lands)</b>	1% non-forest, 6% early grass/forb (0 to 10 years old), 29% open sapling/brush (10 to 40 years old), 44% closed sapling (40 to 80 years old), 20% mature (80 to 200 years old), no old growth (greater than 200 years old). LMR Terrestrial Report p. 3	
<b>Recommended Priority Areas for Riparian Treatment present in the proposed Beeline units</b>	Timber harvest on federal lands should emphasize enhancement and restoration opportunities that target stands in Riparian Reserves that have been managed primarily for timber in the past. Implement density management prescriptions to develop and maintain late successional forest stand characteristics. Desirable stand characteristics include larger trees for a large green tree component and recruitment of large standing dead/down coarse woody debris in future stands, multi-layered stands with well developed understory, and multiple species that include hardwoods and other minor species. LMR Terrestrial Report p.	

**Table 4: Lower Clackamas River - Clear and Foster Creek WA, 2002, Upper Clear Creek Watershed Analysis, 1995**

<b>Lower Clackamas River Watershed</b>	
<b>Sub-Watershed</b>	<b>Upper Clear Creek</b>
<b>Beeline Units within this watershed</b>	EA unit 3a (unit 1), 13 acres, EA unit 10c (unit 2), 12 acres EA unit 10b (unit 3), 41 acres, EA unit 10a (unit 4), 5 acres 71 acres or 18% of the Beeline Thinning acres
<b>Events contributing to current conditions</b>	Early use of the Clear Creek watershed had an emphasis on timber. In the mid - 1800's there were several mills in the area and the creek was used for log transport. Farmland expanded as the thick timber was cleared. Forest and agricultural products continue to be important to the local economy. Much of the watershed is zoned for natural resources; timber, farm and agricultural/forest uses.
<b>Ownership</b>	29% private undefined, 46% private timber, 1% county 15% BLM, 9% Forest Service (2002 WA p. 1-31)
<b>Aquatic Habitat Conditions and Limiting Factors</b>	Generally, streams within the project area are moderate to high-gradient (4-10%), confined, boulder dominated channels with well-vegetated, stable banks. Streams are generally well shaded by closed canopies provided by coniferous and deciduous trees (EA p. 37, 70. WA pp. 5-12). Resident fish only within the

<b>Lower Clackamas River Watershed</b>	
	thinning units.
<b>Riparian Reserve Vegetation (federal lands)</b>	Vegetation by Tree Size class: 9% non-tree vegetation, 10% plantation, 55% small trees (4- to 12-inch average DBH), 25% medium trees, (>12- to 24-inch average DBH), 1% large trees
<b>Vegetation Cover and Condition (federal lands)</b>	7% non-forest, 40% shrub/sapling, 23% pole, 17% mature, 6% older forest, 1% old growth, 6% hardwoods.
<b>Recreation Use and Opportunities</b>	Recreation opportunities and values in the Upper Clear Creek watershed are limited. Public lands made up of relatively small tracts of land constitute a small percentage of the watershed. Therefore, public access is limited to only a few areas within the watershed. There are no known recreation developments, trails, special areas or attractions. The area does not provide easy access through roads or trails to the nearby Clackamas River area that is heavily used for recreation. Recreation activities have generally been limited to target shooting, hunting and some fishing.
<b>Recommended Priority Areas for Riparian Treatment present in the proposed Beeline units</b>	Timber harvest within riparian areas should emphasize enhancement and restoration, and should be implemented to develop and maintain late seral forest stand characteristics for aquatic and terrestrial species. Desirable stand characteristics include larger trees for a large green tree component and recruitment of large standing dead/down LWM in future stands, multi-layered stands with well developed understories, and multiple species that include hardwoods and other minor species. Density Management would be used primarily in mid-seral stands to encourage the development of late seral conditions. (2002 WA 5-35)

**Table 5: Upper Molalla River - Molalla Watershed Analysis (WA), 1999**

<b>Upper Molalla River Watershed</b>	
<b>Sub-Watershed</b>	<b>North Fork Molalla Tributary - Dead Horse Creek Subwatershed</b>
<b>Beeline Units within this watershed</b>	64 acres of EA unit 21a (unit 7) or 17% of the Beeline Thinning acres
<b>Events contributing to current conditions</b>	Early hunting/gathering by aboriginal inhabitants, road building, agriculture, wildfire, and timber harvest contributed to the current watershed conditions. (WA pp. 38 and Ch 4). The earliest timber harvest in the watershed has been regenerated and stands are progressing towards providing mature forest structure. Most of the private industrial lands have been and will continue to be moved from mid condition class to the early condition class.
<b>Ownership</b>	Thirty-three (33%) percent of the watershed is managed by BLM, 62% is private, 2% is Forest Service, and 3% is managed by the State of Oregon. WA p. 16
<b>Aquatic Habitat Conditions and Limiting Factors</b>	Generally, streams within the project area are moderate to high-gradient (4-10%), confined, boulder dominated channels with well-vegetated, stable banks. Streams are generally well shaded by closed canopies provided by coniferous and deciduous trees (EA p. 37, 70. WA p. 16). Resident fish only within the thinning units.
<b>Riparian Reserve Vegetation (federal lands)</b>	66% classed > 80 years old but most is fragmented 27% classed < 80 years old (altered stand structure) 7% classed mature hardwood. Physical connectivity is good, but older forest connectivity is partial. 37% high, and 43% low LWD recruitment potential
<b>Vegetation Cover and Condition</b>	44 % <40 years old, 17 % 40 to 80 years old, 33 % >80 years old, 6% mature hardwood
<b>Recreation Use and Opportunities</b>	Recreation demand is extremely low due to restricted public access. Recreation use primarily limited to dispersed activities in the upper reaches of Lukens and Dead Horse Creeks as they can be accessed from the Clackamas River Drainage and FS lands.

Upper Molalla River Watershed	
<b>Recommended Priority Areas for Riparian Treatment present in the proposed Beeline units</b>	<p>(Molalla WA p. 7) Priority areas for Riparian Reserve treatments include areas where:</p> <ul style="list-style-type: none"> <li>• Treatment would improve late-seral connectivity within the watershed and with adjacent watersheds.</li> <li>• Past management activities have altered forest stand structure or species composition and created a lack of stand diversity.</li> <li>• Previously thinned stands.</li> </ul>

***Review of Aquatic Conservation Strategy Compliance:***

I have reviewed this analysis and have determined that the project complies with the ACS on the project (site) scale. The results of my review at the site scale have not changed from the review documented in the EA, Table 13, p. 59.

In addition I have reviewed this project against the ACS objectives at the project or site scale with the following results: The no action alternative does not retard or prevent the attainment of ACS objectives 1-9 because this alternative will maintain current conditions. The Selected Action does not retard or prevent the attainment of ACS objectives 1-9 for the reasons stated in the following paragraphs

**1. ACSO 1: Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.** Addressed in Text (*EA sections 3.2.1, 3.2.5*). In summary:

- **No Action Alternative:** The No Action alternative would maintain the development of the existing vegetation and associated stand structure at its present rate. The current distribution, diversity and complexity of watershed and landscape-scale features would be maintained. Faster restoration of distribution, diversity, and complexity of watershed and landscape features would not occur.
- **Action Alternatives (EA proposed action and selected action):** The proposed combination of thinning from below and unthinned areas in the Riparian Reserve LUA would result in forest stands that exhibit attributes typically associated with stands of a more advanced age and stand structural development (larger trees, a more developed understory, and an increase in the number, size and quality of snags and down logs) sooner than would result from the No Action Alternative.

**2. ACSO 2: Maintain and restore spatial and temporal connectivity within and between watersheds.** Addressed in Text (*EA sections 3.2.1, 3.2.5*). In summary:

- **No Action Alternative:** The No Action alternative would have little effect on connectivity except in the long term within the affected watersheds.
- **Action Alternatives (EA proposed action and selected action):** Implementation of the proposed project will not eliminate connectivity between project units or adjacent untreated stands under BLM management (EA pp. 6-7, 48, 52). Long term connectivity of terrestrial watershed features would be improved by enhancing conditions for stand structure development. In time, the Riparian Reserve LUA would improve in functioning as refugia for late successional, aquatic and riparian associated and dependent species.

Both terrestrial and aquatic connectivity would be maintained, and over the long-term, as the Riparian Reserve LUA develops late successional characteristics, lateral, longitudinal and drainage connectivity would be restored.

**3. ACSO 3: Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.** Addressed in Text (*EA sections 2.2.3, 3.2.2, and 3.2.3*). In summary:

- **No Action Alternative:** It is assumed that the current condition of physical integrity would be maintained.
- **Action Alternatives (EA proposed action and selected action):** The proposed project will not alter stream channel, wetlands or pond morphological features. In most of the project area yarding operations and equipment will be at least 20 feet from stream channels. Road repair at stream crossings will result in small (limited to the road right-of-way), short term (1 year or less) alteration of channels. All effects will likely be within the range of effects disclosed in the RMP/FEIS (BLM, 1994). Other than these effects, this proposal will be unlikely to alter the current condition of channels, wetlands and ponds in the project area: minimization of direct and indirect disturbances from the proposed action is expected to protect the current channel morphology (EA pp. 35).

**4. ACSO 4: Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems.** Addressed in Text (*EA sections 2.2.3, 3.2.2, and 3.2.3*). In summary:

- **No Action Alternative:** It is assumed that the current condition of the water quality would be maintained.
- **Action Alternatives (EA proposed action and selected action):** The BLM will limit new road construction to 0.1 mile. The proposed new and improved roads are on ridge top or upper-slope locations with no hydrologic connections or proximity to streams or riparian areas. Tree removal, road renovation and construction will not occur on steep unstable slopes where the potential for mass wasting adjacent to stream reaches is greatest. Therefore, increases in sediment delivery to streams due to mass wasting are unlikely to result from this action.

Implementing Best Management Practices (BMP) for thinning, yarding, hauling, culvert replacement and road design and use will reduce the potential for detectable sediment delivery to streams as a result of operations (EA pp. 35-36). Examples of BMP's include: maintaining stream protection Zones (SPZs) in RRs (minimum of 60 feet on fish bearing streams and 25 feet on non-fish bearing streams in treatment areas); restricting hauling and ground based operations and implementing sediment control measures to minimize sediment delivery; and ensuring appropriate drainage from road sites (RMP Appendix C, pp. C-1 to C-9) (EA pp. 35-36).

These action alternatives would be unlikely to have any measurable effect on stream temperatures, pH, or dissolved oxygen. The proposed project meets the Oregon Department of Environmental Quality's (ODEQ) Willamette Total Maximum Daily Load (TMDL) requirements for the maintenance of and/or increase in effective shade adjacent to perennial streams by retaining all vegetation in a Stream Protection Zone (SPZ) corresponding to the "primary shade zone" (EA pp. 36).

5. **ACSO 5: Maintain and restore the sediment regime under which aquatic ecosystems evolved.** Addressed in Text (*EA sections 2.2.3, 3.2.2, and 3.2.3*). In summary:
- **No Action Alternative:** It is assumed that the current levels of sediment into streams would be maintained.
  - **Action Alternatives (EA proposed action and selected action):** See ASCO # 4.
6. **ACSO 6: Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing.** Addressed in Text (*EA sections 2.2.3, 3.2.2, and 3.2.3*). In summary:
- **No Action Alternative:** No change in in-streams flows would be anticipated.
  - **Action Alternatives (EA proposed action and selected action):**
    - Ground Water:** It is unlikely the proposal will result in any detectable change to local ground water. The proposal will remove less than half the existing forest cover in Riparian Reserve and less than 60 percent in the Matrix portions of the harvest area, and the root systems of the conifers retained will quickly exploit any additional soil moisture availability. Proposed road construction will not involve excavation into side slopes where water tables could be intercepted. (EA pp. 34)
    - Base Flow:** It is unlikely the proposal will result in any detectable change to local base flow, because the proposed project will remove approximately half the existing forest cover within Riparian LUA, so that the root systems of the conifers retained will quickly exploit any additional soil moisture availability. (EA pp. 34)
    - Peak flow effects from harvest:** Since portions of the project area are in a zone subject to transient snow accumulations in the winter, it can be assumed that the reduction in stand density may result in some small increase in snow accumulation and melting during rain-on-snow (ROS) events. However, due to the small area considered in this action, this effect is not likely to result in detectable changes to peak flows in these watersheds. (EA pp. 34)
    - Peak flow effects from new road construction:** New road construction is limited to 0.1 mile, which will be blocked and stabilized after logging operations. New road construction will also be limited to stable slopes. Slopes in these areas are low to moderate, and will not require extensive full-bench or cut-and-fill construction. This is unlikely to have a detectable effect on peak flows because there will be no interception of surface or ground water with delivery to streams. (EA pp. 34-35)
    - Peak flow effects from roads:** Most of the roads that will be utilized under this proposal already exist. This proposal will not alter these roads in a way that will likely reduce or increase any existing effect to peak flows attributable to the current road network, and thus, it will maintain the current condition and trends relative to hydrology and stream flow that existing roads contribute to. Improvement and repair of road surfaces will be implemented under the proposed action. Some of these actions may reduce existing road effects on local and watershed hydrology (EA pp. 35).
7. **ACSO 7: Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.** Addressed in Text (*EA sections 2.2.3, 3.1*). In summary:
- **No Action Alternative:** The current condition of flood plains and their ability to sustain inundation and the water table elevations in meadows and wetlands is expected to be maintained.

- **Action Alternatives:** There would be no alteration of any stream channel, wetland or pond morphological feature. All operations, equipment and disturbances are kept a minimum of 60 feet from all wetlands and perennial stream channels, and 25 feet from all intermittent stream channels. Thus, the current condition of floodplain inundation and water tables would be maintained.

**8. ACSO 8: Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.** Addressed in Text (*EA sections 2.2.3, 3.2.2, and 3.2.3*). In summary:

- **No Action Alternative:** The current species composition and structural diversity of plant communities would continue along the current trajectory. Diversification would occur over a longer period of time.
- **Action Alternatives:** SPZs would maintain the current species composition and structural diversity of plant communities in riparian areas and wetlands from 25 feet (intermittent streams) to 60 feet (perennial streams) in treatment areas. Thinning in the Riparian Reserve LUA outside of the SPZs would help to restore diversity in species composition by allowing more understory development and help to restore structural diversity by creating horizontal and vertical variations that are currently lacking in the riparian treatment areas.

**9. ACSO 9: Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.** Addressed in Text (*EA sections 2.2.3, 3.2.1, 3.2.2, 3.2.3 and 3.2.5*). In summary:

- **No Action Alternative:** Habitats would be maintained over the short-term and continue to develop over the long-term with no known impacts on species currently present.
- **Action Alternatives:** The action alternatives would have no adverse effect on riparian dependent species. In the long term, the treatments would restore elements of structural diversity to treatment areas in the Riparian Reserve LUA. These attributes would help to provide resources currently lacking or of low quality, and over the long-term, would benefit both aquatic and terrestrial species.

## 6.0 Public Involvement/ Consultation/Coordination

### Scoping:

A description of the proposal was included in the Salem Bureau of Land Management Project Update which was mailed to more than 1,000 addresses. A letter asking for scoping input on the proposal was mailed on September 27, 2006 to adjacent landowners, and individuals who expressed an interest in management activities in the resource area as a whole or in this area. Letters were also sent to the Confederated Tribes of Grande Ronde; Confederated Tribes of the Warm Springs Reservation of Oregon; Federal, State, County and local government organizations; and Special Interest groups.

### **Comment Period and Comments:**

The Beeline/McDowell Creek Thinning EA was mailed to agencies, individuals and organizations. Legal notices were placed in the Molalla Pioneer and Albany Democrat Herald newspapers, soliciting public input on the actions, from March 21, 2007 to April 20, 2007. Responses to public comments can be found in DR section 11.0.

### **ESA Section 7 Consultation**

The timber sale was submitted for Formal Consultation with U.S. Fish and Wildlife Service (USFWS) as provided in Section 7 of the Endangered Species Act (ESA) of 1973 (16U.S.C. 1536 (a)(2) and (a)(4) as amended).

#### 1. U.S. Fish and Wildlife Service

The Beeline Thinning project (along with the McDowell Creek Thinning project) was originally submitted for ESA Section 7 Consultation during the programmatic consultation process on FY 2007-2008 habitat modification projects in the Willamette Province, then resubmitted during the FY2009/2010 consultation process. The *Letter of Concurrence Regarding the Effects of Habitat Modification Activities within the Willamette Province, FY2009-2010* (LOC) associated with these thinnings was issued in October 2008 (reference # 13420-2008-I-0140). The LOC concluded that these thinnings will not appreciably reduce the likelihood of survival or recovery for the spotted owl population and the conservation needs of the spotted owl will continue to be met at the provincial and range-wide scale because the proposed action is consistent with the NWFP (LOC p. 31). None of the proposed units are located in Critical Habitat for the northern spotted owl.

The proposed thinning and connected actions described in this EA have incorporated the applicable Management Standards that were described in the BA (p.6-7) and LOC (pp.12-14). This includes monitoring and reporting on the implementation of this project and any adverse effects.

In addition, the general seasonal restrictions for bark slippage and soil moisture coincide with the critical nesting season, effectively delaying disturbance activities until later into the nesting season (EA p. 63).

#### 2. National Marine Fisheries Service (NMFS)

The action alternative would have “no effect” on UWR steelhead trout, UWR chinook salmon, LCR coho salmon, LCR Chinook salmon, or LCR Steelhead trout. Thus, consultation with NMFS on the potential effects of the project on those species is not required. The determinations of “no effect” are based primarily on the location of the projects relative to ESA listed species distributions: all of the proposed harvest units are located well upstream of habitat that may be occupied by ESA listed fish species (EA *Section 7.1, Table 19*, p. 70). Additionally, the projects incorporate design features that would prevent increases in water temperature, limit sediment input to stream channels and associated increases in stream turbidity, and would prevent alteration of streambed and bank characteristics (EA pp. 39-40).

## 7.0 Conclusion

### Review of Finding of No Significant Impact

I have determined that changes to the Findings of No Significant Impact (EA #OR080-06-06 FONSI – pp. 5-8) covering the Beeline Thinning Timber Sale is not necessary for the following reasons: I considered and concur with the information in the EA, FONSI, and this Decision Rationale. I reviewed the comments on the EA and no new information was provided in the comments that lead me to believe the analysis, data or conclusions are in error or that the selected action needs to be altered. The selected action would not have effects beyond those already anticipated and addressed in the 1994 RMP/FEIS.

Supplemental or additional information to the analysis in the 1994 RMP/FEIS in the form of a new environmental impact statement is not needed for the reasons described in the Findings of No Significant Impact (EA FONSI pp. 5-8). Effects of the selected action are similar to the effects described in the EA. The impacts of the changes described in the selected action (DR section 3.0) have been analyzed in the EA (pp. 27-59) and therefore are within the scope of 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 CFR 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. This notice of decision will be published in the *Molalla Pioneer* on Sept 2, 2009. To protest this decision a person must mail or hand deliver a written protest to Cindy Enstrom, Cascade Field Manager, 1717 Fabry Rd SE, Salem, Oregon 97306 by the close of business (4:00 p.m.) on September 17, 2009. The planned sale date is September 29, 2009.

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 shall serve a decision in writing on the protesting party (43 CFR 5003.3).

### Implementation Date

If no protest is received within 15 days after publication of this Decision Record this decision will become final. Agency contact: For additional information, contact Rudy Hefter (503) 375-5671 or Sandra Holmberg (503) 375-5644, Cascades Resource Area, Salem BLM, 1717 Fabry Road SE, Salem, Oregon 97306.

Approved by: Cindy Enstrom  
Cindy Enstrom  
Cascades Resource Area Field Manager

8/26/2009  
Date

## 8.0 Comparison of the Selected Action with the EA Proposed Action

Table 6: Comparison of the Selected Action with the EA Proposed Action

Legal T-R-S	EA Unit	Stand birth date <sup>1</sup> / Age <sup>2</sup>	TS Contract Unit	Silvicultural Prescription Acres <sup>3</sup> (Proposed Action)			Contract Acres <sup>3</sup> (Selected Action)		
				Total	GFMA	Riparian Reserve	Total	GFMA	Riparian Reserve
<b>Thinning</b>									
5S-4E-3	3A	1961 / 48 <sup>4</sup>	1	14	14	0	13	13	0
5S-4E-10	10C	1956 / 53	2	14	14	0	12	12	0
	10B	1956 / 53	3	63	59	4	41	38	3
	10A	1956 / 53	4	14	5	9	5	3	2
5S-4E-17	17A	1950 / 59	5	122	122	0	105	105	0
5S-4E-21	21B	1954 / 55	6	63	63	0	54	42	12
	21A	1954/ 55	7	179	167	12	160	143	17
<b>Road Right-of-way clearing</b>									
5S-4E-10	10B	1956 / 53	3				2	2	0
			<b>Total</b>	469	444	25	392	358	34

<sup>1</sup> Stand birth date is the year the current stand was established

<sup>2</sup> Age in years

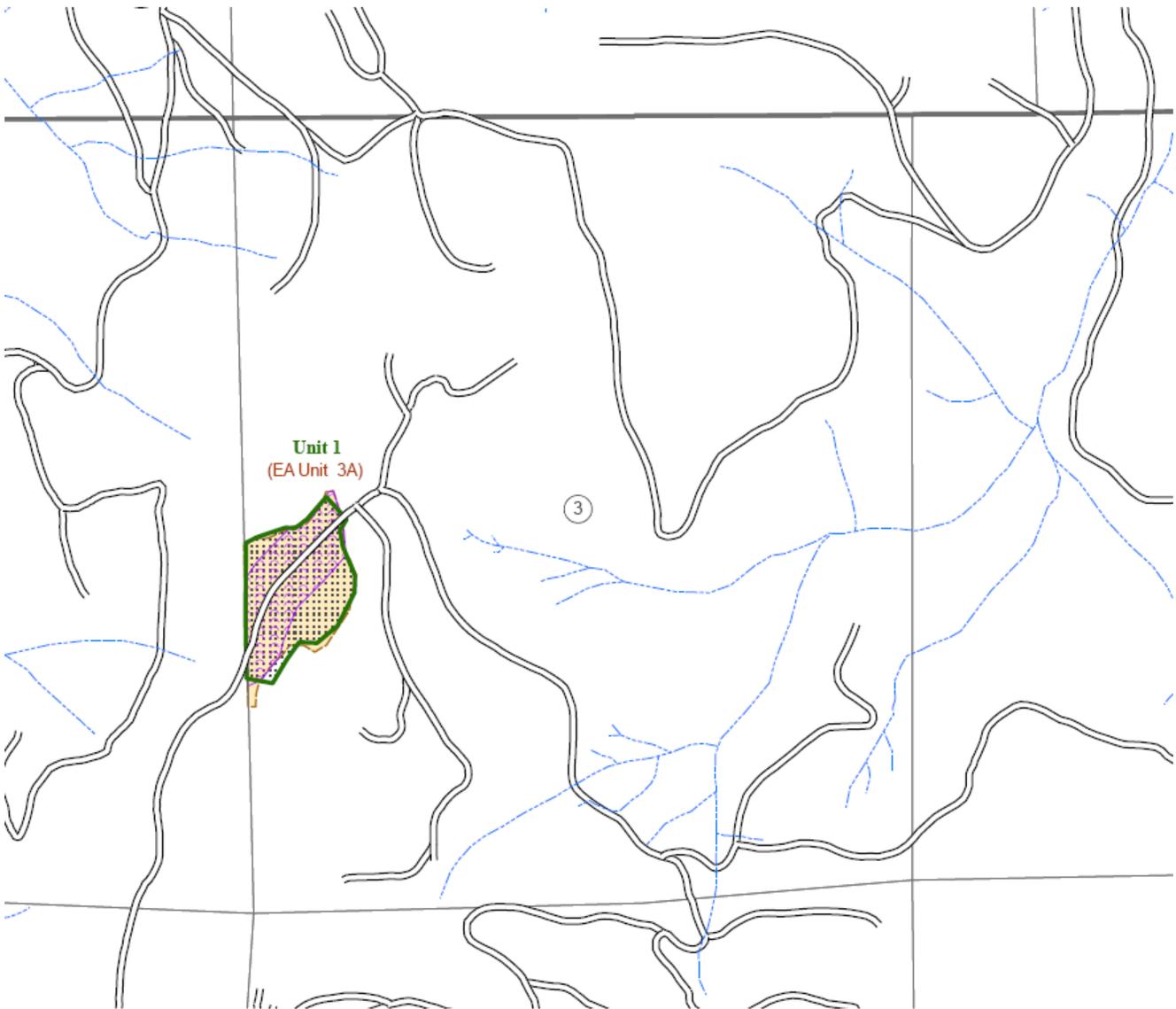
<sup>3</sup> Preliminary mapping used for EA analysis by the Interdisciplinary Team (IDT) is based on information in the GIS data base and initial reconnaissance (see EA Table 16, p. 69). The silvicultural prescription acres are based on additional field work and data collection. Contract acres are based on Global Positioning System surveys of actual treatment boundaries.

<sup>4</sup> The scoping maps and the vicinity map for the Beeline project (EA p. 10) incorrectly showed unit 3a in the 76-95 year old age class. The Beeline Silvicultural prescription for unit 3a (Silv RX pp. 4, 5) shows the stand birth date as 1961 (48 years old) and the EA (p. 69) shows 3a in the 50 year age class (41-50 years old).

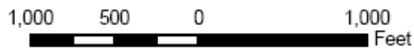
# 9.0 Maps

## BEELINE THINNING SELECTED ACTION MAP

T. 5 S., R. 4 E., Section 3, W.M. - SALEM DISTRICT - OREGON



- |  |  |   |
|--|--|---|
|  Road to be Constructed |  Selected Action Unit |  EA Proposed Action Unit |
|  Existing Road          |  Ground Based Yarding |  Riparian Reserve LUA    |
|  Stream                 |  Skyline yarding      |  Fuel Treatment Area     |

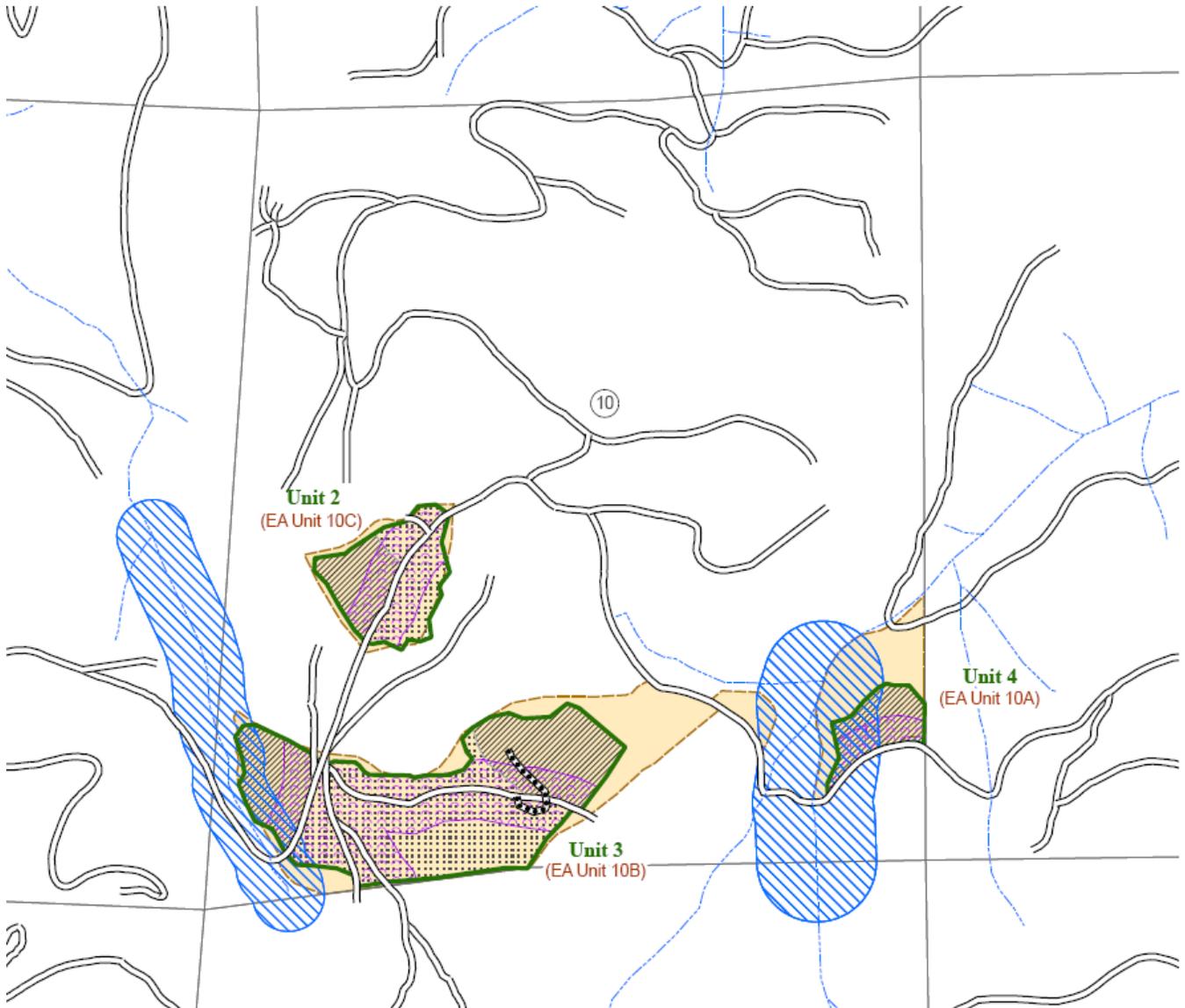


No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data was compiled from multiple source data and may not meet U.S. National Map Accuracy Standards of the Office of Management and Budget. This product was developed through digital means and

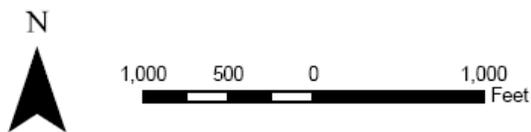
August 24, 2009

**BEELINE THINNING SELECTED ACTION MAP**

T. 5 S., R. 4 E., Section 10, W.M. - SALEM DISTRICT - OREGON



- |  |  |   |
|--|--|---|
|  Road to be Constructed |  Selected Action Unit |  EA Proposed Action Unit |
|  Existing Road          |  Ground Based Yarding |  Riparian Reserve LUA    |
|  Stream                 |  Skyline Yarding      |  Fuel Treatment Area     |

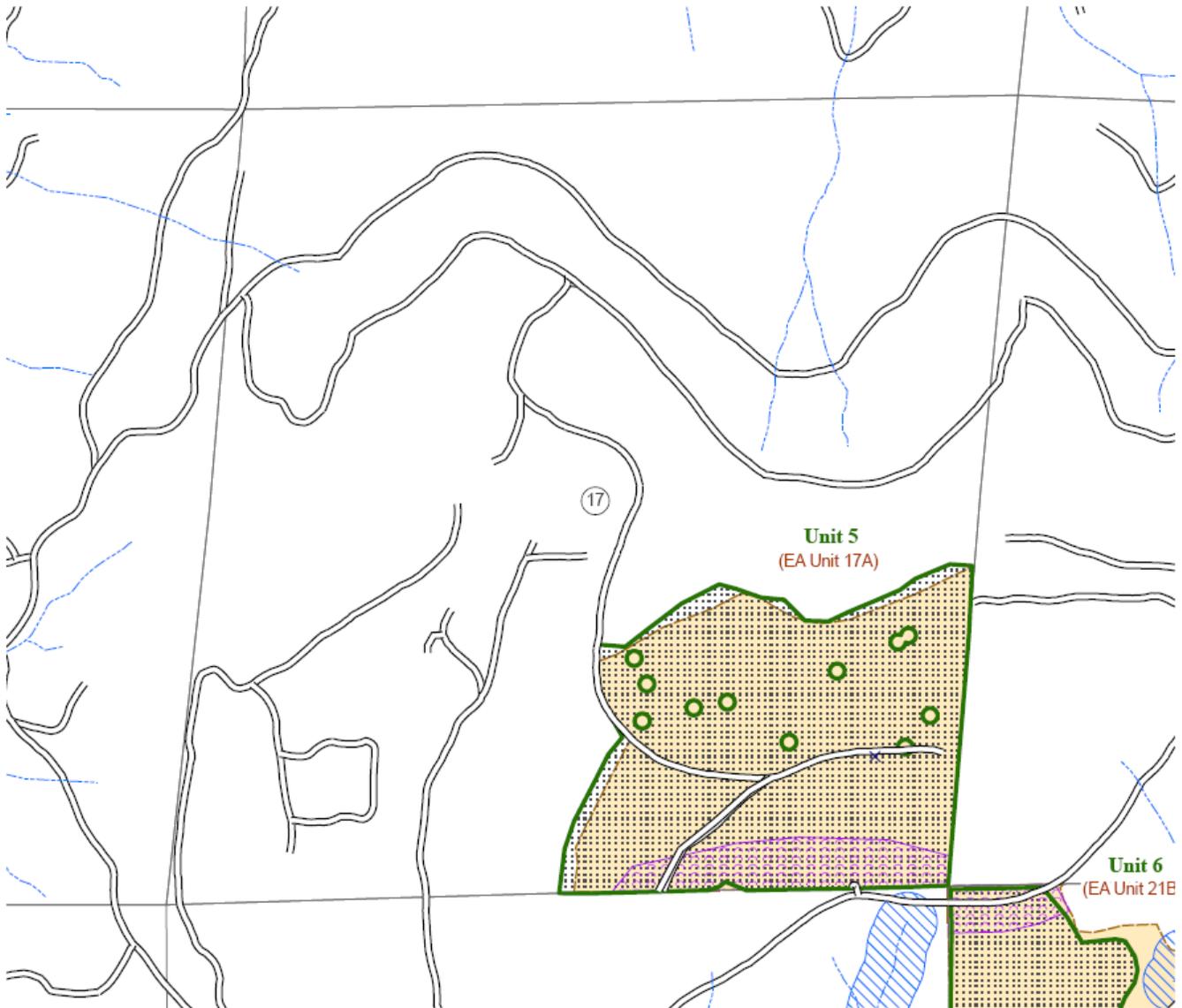


No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data was compiled from multiple source data and may not meet U.S. National Map Accuracy Standards of the Office of Management and Budget. This product was developed through digital means and

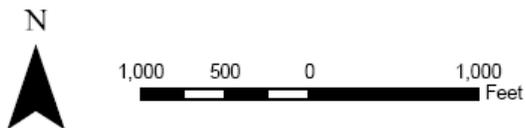
August 24, 2009

**BEELINE THINNING SELECTED ACTION MAP**

T. 5 S., R. 4 E., Section 17, W.M. - SALEM DISTRICT - OREGON



- |  |  |   |
|--|--|---|
|  Road to be Constructed |  Selected Action Unit |  EA Proposed Action Unit |
|  Existing Road          |  Ground Based Yarding |  Riparian Reserve LUA    |
|  Stream                 |  Skyline yarding      |  Fuel Treatment Area     |

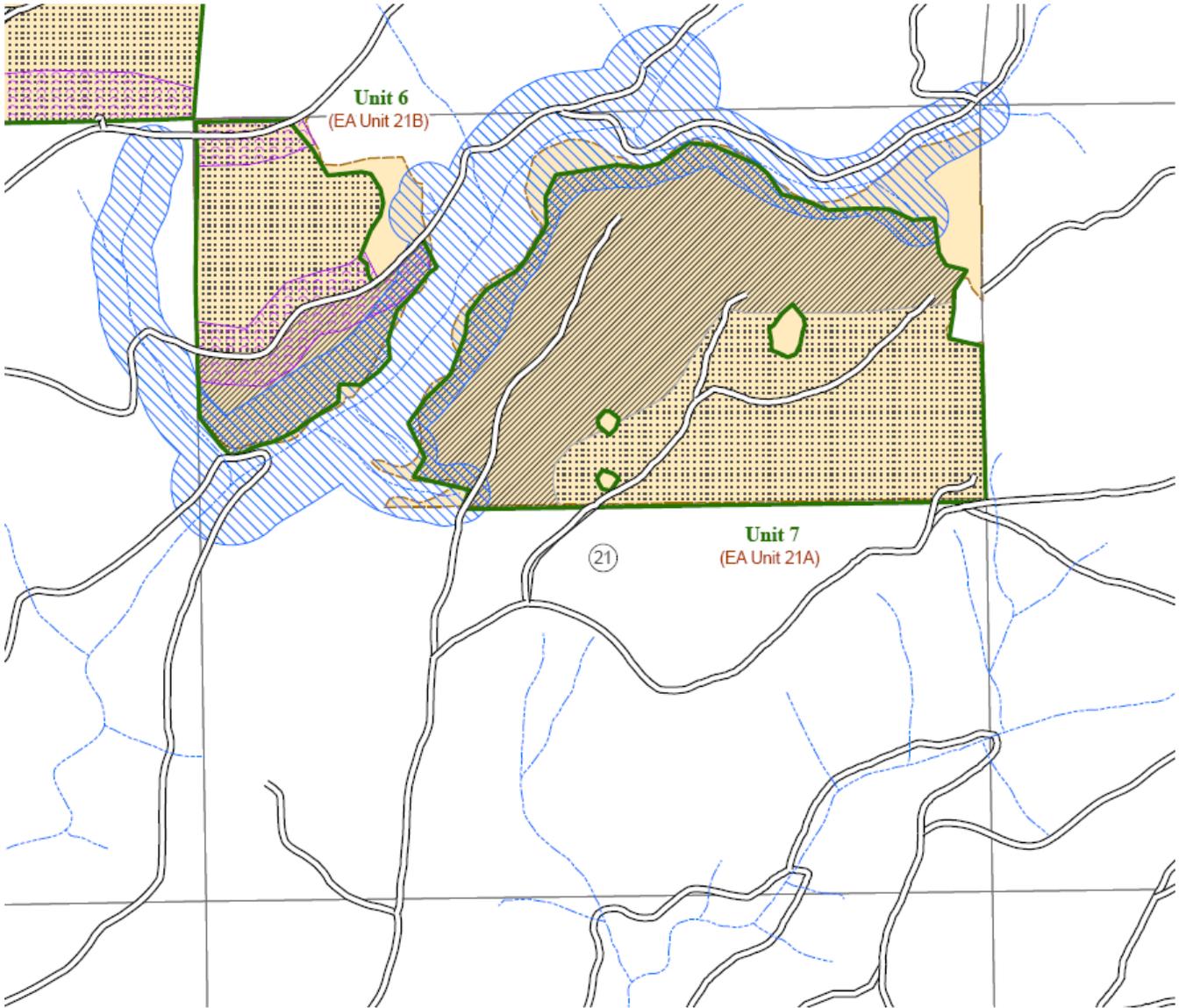


August 24, 2009

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### BEELINE THINNING SELECTED ACTION MAP

T. 5 S., R. 4 E., Section 7, W.M. - SALEM DISTRICT - OREGON



- |                        |                      |                         |
|------------------------|----------------------|-------------------------|
| Road to be Constructed | Selected Action Unit | EA Proposed Action Unit |
| Existing Road          | Ground Based Yarding | Riparian Reserve LUA    |
| Stream                 | Skyline Yarding      | Fuel Treatment Area     |



August 24, 2009

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## 10.0 Project Design Features

This section describes a summary of the project design features that apply to the Selected Action. Where the design feature is identical to the design feature prescribed in the EAs, the EA reference is provided. Project design features for the EA proposed actions and alternatives are described in Beeline/McDowell Creek Thinning section 2.2.3. Design features are organized by resource management objectives.

1. **Soil Productivity:** Design features described in the EA (pp.21-22) would be applied to the Selected Action. Examples include: a) using currently available equipment and practices that limit soil compaction to less than 10 percent of the area and minimize soil disturbance and erosion potential; b) preventing erosion by logging design, practices and post harvest treatment of disturbed areas; c) limiting ground based operations to relatively dry soil conditions; d) limiting new skid trails to slopes less than 35 percent; e) burning piles when soils are wet and less susceptible to heat damage.
2. **To protect hydrologic functions, aquatic habitat and fisheries:** Design features described in the EA (pp. 22-23) would be applied to the Selected Action. Examples include: a) maintain areas of undisturbed vegetation between streams and harvest areas, also known as stream protection zones (SPZ); b) replacing live stream culverts during the in-stream work period; c) constructing, improving, renovating and stabilizing roads during dry conditions; d) stabilizing, and controlling access to all new roads upon project completion; e) placing erosion control measures on roads left open over the winter; f) restricting hauling to times and road conditions that would not generate large amounts of sediment that could enter streams.
3. **To protect and enhance the residual stand, stand diversity, and wildlife habitat components:** Design features described in the EA (p.23) would be applied to the Selected Action. Examples include: a) retaining old growth trees, snags, minor conifer tree species, hardwoods, and most cull and deformed trees; b) retaining existing CWD intact whenever feasible; c) maintaining minimum canopy closures of 40 percent in Matrix and 50 percent in Riparian Reserve; d) restricting operations during the spring growing season when the bark of retained trees is easily damaged.
4. **To protect against expansion of invasive and non-native plant species:** Design features described in the EA (p. 23) would be applied to the Selected Action. Examples include: a) cleaning equipment to prevent importing off-site plants; b) using only native species seed and sterile mulch to stabilize disturbed soil.

5. **To minimize disturbance to BLM Special Status Species and other Species of Concern:**

*Northern Spotted owl:* The seasonal restrictions to protect the retained trees from bark damage and to prevent soil damage would also delay operations until later in the owl nesting season. Other standard provisions of the contract allow for restricting operations if owls are found. Since there is no suitable habitat and no owls have been found in or adjacent to the project area in the Selected Action, no specific owl nesting season restrictions on operations are required.

*Other:* Design features described in the EA (p. 24, Item 4, Bullet 3) will be applied to the Selected Action. Examples include: shutting down or restricting operations after finding plant or animal populations that require protection.

6. **To reduce fire hazard risk and protect air quality:** Design features described in the EA (p.24) would be applied to the Selected Action. Examples include: a) treating activity fuels (woody debris that could contribute to fire spread) near open roads and adjacent to property lines in Rural/Urban Interface areas; b) burning in compliance with the state Smoke Management Plan; c) closing or gating roads to reduce fire risk on a site-specific basis.
7. **To protect cultural resources:** Design features described in the EA (p. 24) would be applied to the Selected Action. Examples include: shutting down or restricting operations after finding cultural resources that require protection.
8. **Summary of seasonal restrictions and permitted operational periods:** Seasonal restrictions described in the EA (p.24) would be applied to the Selected Action, with the exception of a specific owl nesting season restriction as described in Item 5, above. Examples include: a) restricting falling and yarding during the bark slippage period; b) restricting tractor operations to avoid soil damage; c) restricting road Construction, Improvement and Renovation to dry conditions as an erosion control measure and to avoid soil damage; d) restricting work in streams (e.g. live stream culvert replacement) to in-water work periods to protect fish species.

## 11.0 Response to EA Comments

The BLM mailed copies of the EA, posted the EA on the Salem District home page on the internet, and placed notices in the Albany Democrat-Herald and Molalla Pioneer newspapers on March 21, 2007. BLM made the EA available for comment from March 21, 2007 to April 20, 2007. One comment letter from an individual and two comment letters from organizations were received. The major concerns raised in the comments have been consolidated and summarized.

### Reasonable Range of Alternatives

*Comment 1: "The EA prepared for the Beeline and McDowell Creek timber sales fails to give an adequate discussion or analysis of alternatives to the proposed action. This scope of alternatives is only adequate if the alternatives presented permit the decision-maker a reasonable choice. Part of the purpose and need of this project, as started in the EA, is "to maintain and develop safe, efficient and environmentally sound road system" and "reduce environmental effects associated with identified existing roads within the project areas." (EA 1.2) Surely there are other action alternatives that could better meet this purpose and need, and have meaningful differences to the environment, than simply the action item presented." (Bark 2007 pg1)*

Response 1: Bark expressed the opinion that the range of alternatives presented in the EA is insufficient to provide the decision maker with a reasoned choice. Bark did not, however, offer any suggested alternatives that meet the purpose and need of the project. Alternatives were considered that include regeneration harvest and variable density thinning but the stands considered either did not fit the criterion or would not achieve the objectives as well as the proposed prescription (EA 2.4). The first purpose and need "to maintain and develop safe, efficient and environmentally sound road system" is to provide appropriate access for timber harvest, silvicultural practices, and fire protection vehicles needed to meet to meet the objectives." (EA 1.2)

## **Cumulative Impacts**

*Comment 2: “The justification for combining these two projects into one EA is inappropriate.....considering the potential conflict of analyzing the environmental impacts of two different actions with one document.” (Bark 2007 pg 2)*

Response 2: The connected action in the two project areas that give reason to document them in one EA are found in EA 1.1 The document shows that the common denominator of the two projects focus on the silviculture prescriptions and the Purpose and Need for Action, not geographic locations. The analysis in the Beeline/McDowell EA is site specific and supplements analyses found in the Salem District Resource Management Plan/ Final Environmental Impact Statement, September 1994 (RMP/FEIS). (EA 1.3)

## **Access and Public Involvement**

*Comment 3: “The majority of the roads leading to public lands in question were routinely closed to private holding gates....Consider using signage and communication with other parties that these gates must stay open for, AT LEAST, the period you are actively inviting the public comment.” (Bark 2007 pg 5)*

Response 3: Unfortunately some public lands are land locked by privately owned land. It is the private land owners’ choice to restrict access in and through their land at any time. BLM has no authority to dictate otherwise.

*Comment 4: Public was unable to find “2007 Timber Sale Thinning EA” which was referenced as a source. (Bark 2007 pg 5)*

Response 4: During the scoping phase of the planning process BLM made the decision to separate the Beeline/ McDowell Creek projects from the Gordon Creek project which was originally called 2007 Thinning projects. BLM never published an EA document named “2007 Timber Sale Thinning EA,” and none was ever available to public because none exists. This is indicated by the subtitle on the cover page of the EA which reads: “Formerly 2007 Timber Sale Thinning”. This is repeated in the FONSI on page 5, paragraph 2 of the EA.

## **Aquatic Conservation Strategy**

*Comment 5: “Since the EA was released, the court has ruled that the 2004 amendment of the Aquatic Conservation Strategy (ACS) was illegal. The BLM should revisit the analysis to ensure compliance with ACS objectives at all spatial scales.” (Bark 2007 pg 2 & Oregon Wild 2007 p 1)*

Response 5: On March 30, 2007, the court set aside the 2004 ACS FEIS and Decision. Based on this ruling, the BLM updated the ACS evaluation and shows how the Beeline thinning project meets the Aquatic Conservation Strategy in the context of PCFFA IV and PCFFA II (DR section 5.0). In addition, page 59 of the EA shows how the project meets the four components of the Aquatic Conservation Strategy.

*Comment 6: “The Beeline/McDowell Creek EA by ignoring the consequences from the peak flow erosion, and relying on untested mitigation assumption, fails to demonstrate that the objectives of the Aquatic Conservation Strategy will be attained...there is no information about how this project is adhering to ACS standards.” (Bark 2007 pg 3)*

Response 6: Peak flows are addressed in the EA pp. 34 and 35, in the Hydrology Report on pp. 5, 6 and in the analysis of the Nine ACS Objectives (DR pp.7). The ACS is also discussed on EA pp. 59 and in the response to comment 5.

*Comment 7: One of your evaluation criteria should be whether any short term degradation of ACS objectives is off-set by long term benefits brought about by the proposed action.” (Oregon Wild pg 6)*

Response 7: Short term and long term effects are addressed in association with each resource under its environmental effects. Specific discussion is found in EA 3.2.1.1 (Vegetation and Forests Stand), 3.2.2.1 (Hydrology), EA 3.2.3.1 (Fisheries), EA 3.2.4.1 (Soils), 3.2.5.1 (Wildlife), 3.2.6.1 (Air Quality and Fire Hazard) and EA 3.2.7.1 (Recreation).

## **Roads and Culvert Replacement**

*Comment 8: “...many of the culverts in the Beeline area are in need of replacement and Bark appreciates efforts and investment in keeping these problems from increasing. More information in the EA about what techniques would be used to replace the culverts would be helpful to know.....Will the culverts be replacements of what already exists? Will the culverts that are currently too small in diameter be replaced with larger openings? Will the replacements compensate for erosion to avoid further pooling on the inlet and excessive drop-off outlet? Where inboard ditch culverts are in need of replacements, what measures will be taken to ensure that road runoff is not directly draining into streams? (Bark 2007 pg 3-4)*

Response 8: Inadequate or damaged culverts are proposed for replacement to reduce potential blockage and meet 100 year flood standards (EA 2.2.1). Repairs to existing roads at stream crossings and through wetlands will maintain the channel alterations currently in place. In some cases, larger culverts and more stable fills will allow for improved channel morphology over the long term by reducing sediment inputs at the crossing and by increasing the culvert’s capacity to accommodate the stream during peak flows. Upon project completion native grass seed is applied in areas that receive soil disturbance as a result of project activities to help reduce erosion (EA 2.2.3). Sediment would be filtered from ditches that drain into streams, using natural vegetation and artificial sediment traps or filters. Hauling would be restricted to prevent generating large amounts of sediment that could enter streams (EA 2.2.3).

*Comment 9: “.....there is no information about this road obliteration.....Which roads will be obliterated? How will they be ripped? What will they be reseeded with? How will they be blocked? How will this closure be enforced against off-road vehicle abuse?” (Bark 2007 pg 4)*

Response 9: “Obliteration” is not a proposed design feature and the term is not used in the EA.

Page 43 of the EA says that “The design features for treating these roads after operations (shaping and/or ripping roadbeds, partially covering with slash, revegetating, and blocking access) would stabilize the soil surface while leaving the subgrade intact for use in future management operations. For this project, BLM is blocking and stabilizing 0.1 miles of new road construction and 2.6 miles of existing road (DR section 2.0). Seeding will occur with native seed (EA section 3.2.4.1).

*Comment 10: “The EA does not appear to have a site-specific analysis of road impacts.” (Oregon Wild 2007 pg 2)*

Response 10: Road impacts addressed for specific resources can be found in EA 3.2.2 (Hydrology), EA 3.2.3 (Fisheries), EA 3.2.4 (Soils), and EA 3.2.7 (Recreation).

*Comment 11: “Why not remove roads located within Riparian Reserves, rather than renovating them?” (K.S.2007 pg 5)*

Response 11: Existing roads within the Riparian Reserve provide access to areas proposed for treatment. To remove those roads in those locations would cause more disturbance and sediment than leaving them in place. Renovating and using those roads with the design features implemented to ensure that drainage systems function properly (EA 2.2.1) and to prevent generating large amounts of sediment that could enter streams (EA 2.2.3) would prevent long term degradation of water quality (EA 3.2.2) or aquatic habitat (EA 3.2.3). To replace existing roads with new roads outside of the Riparian Reserves would add significantly to the existing road network, increasing rather than decreasing the net effects of roads in the area and doing so at a high cost. Replacement of existing roads in Riparian Reserves does not meet the objectives of an efficient and environmentally sound road system described in the Purpose and Need (EA 1.2).

## **Thinning**

*Comment 12: “Thinning should focus on the smallest trees.....The EA should have had another alternative that considered deferring harvest of the older stands.....use a variable density thinning prescription in all young stand thinning projects regardless of land allocation....The EA should have had a better discussion of the anticipated impacts and benefits of thinning on the different age classes of trees in the different harvest units.” (Oregon Wild 2007 pg 3, 4, 5)*

*Comment 13: “What does “thinning from below mean?” Why would dominant trees at all be removed?” (K.S. 2007 pg 2)*

Response 12 and 13: The proposed action is to thin stands ranging in age from 45-55 years old, removing suppressed, co-dominant, and occasionally dominant trees. While leaving dominant overstory trees at a stocking level designed to provide for the optimum growth, healthy stand structure and habitat requirements. Generally, the largest trees would be left in place (EA2.2). “Thinning from below” refers to removing the suppressed (generally the smallest), co-dominant (“average” size group), and occasional dominant (largest trees of the same age) tree to increase the resources available for the dominant trees.

Dominant trees are occasionally removed when multiple trees are tightly bunched together, removing one or more reduces competition for nutrients and sunlight among the remaining dominant trees, allowing the remaining trees to grow larger and more vigorous. The environmental effects of the treatment are addressed in the EA under section 3.2.1.

### **Thinning in Riparian Reserves**

*Comment 14: “Some fear thinning will increase the risk of premature mass movement... Others think the increase of slides from partial removal is minimal.... Please discuss this question in the NEPA analysis.” (Oregon Wild 2007 pg 5)*

Response 14: EA Section 3.2.2 states that tree removal, and road renovation and construction will not occur on steep unstable slopes where the potential for mass wasting adjacent to stream reaches is high. Thinning near or adjacent to perennial streams is not expected to have adverse effects on the water quality and aquatic habitat within those streams. All perennial streams have Stream Protection Zones (SPZ) of a minimum of 60’ width, generally wider, to ecological or slope breaks where the potential for mass wasting adjacent to stream reaches is greatest. See EA section 2.2.3

*Comment 15: the proposed Riparian Reserve thinning is unusual in that it involves a large acreage and removes a large number of fairly large trees....The agency needs to make the case that the proposed project is not unique of unusual is these respects, and that the environmental effects of these projects were not significant.” (K.S. 2007 pg 1)*

Response 15: The stand structure (crowding leading to unhealthy stand conditions) is the same in both the GFMA and Riparian Reserve portions of the treatment area. The treatments are similar in many respects and the methods of accomplishing those treatments are the same. The primary difference is in the objectives for managing these two Land Use Allocations: GFMA is managed primarily for timber production while Riparian Reserve is managed primarily for habitat (including upland, riparian and aquatic) and water quality, as described in the ACS Objectives. Riparian habitat is protected by the Stream Protection Zones that protect the primary shade zone and riparian vegetation and other features (EA 2.2.3) and by logging design features that protect against soil movement, erosion and sediment, as described in the same section. Salem District has extensive experience conducting thinnings in the Riparian Reserve and is familiar with the impacts. EA p. 29 has fully addressed the impacts. The project area contains no special habitats. Special status species that are protected as recommended in specialist reports. The number of acres being treated does not make this project unusual or unique.

*Comment 16: “....this project will create even more of a scarcity of LWD in the Riparian Reserves by removing all the trees which are logged. The larger trees logged should be retained on site to correct this deficit now.....I disapprove of aspects of the thinning project that would remove these trees from Riparian Reserve areas.” (K.S. 2007 pr 2,4,5,6)*

Response 16: All existing Coarse Woody Debris (CWD)<sup>3</sup> is to be left on site and disturbed as little as possible (less than 10 percent impacted) (EA 2.2.3 section 3).

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<sup>3</sup> LWD, or Large Woody Debris, is used in association with stream channels in BLM reports; CWD is used for terrestrial habitat.

Since thinning is from below, relatively few of the trees that are large enough to be effective CWD would be removed.

*Comment 17: “To what degree will skyline yarding operations be used in Riparian Reserves, as opposed to ground based logging?” (K.S. 2007 pg 3)*

Response 17: Skyline yarding is most effective on steeper slopes where ground based logging is less effective, and since much of the steeper ground within the project area is in or adjacent to Riparian Reserves, most of the approximately 141 acres of skyline yarding will be in the Riparian Reserve. The remainder of the area is planned for ground based logging. (EA Table 3 lists 240 acres of skyline logging, the numbers were transposed in the EA (see DR 2.0).

*Comment 18: “...a minimum of 50 percent canopy closure in the Riparian Reserve is not enough. (K.S. 2007 pg 3,4 & 5)*

Response 18: The author provides no basis in claiming 50% is not enough. Stream temperatures would not be affected by the proposed actions because the 60’ minimum stream protection zones (SPZ’s) on perennial streams would prevent any decrease in shade. To ensure that any harvesting adjacent to perennial streams would not increase summer temperature maximums, the BLM has agreed to follow the *Northwest Forest Plan Temperature TMDL Implementation Strategies* (US Forest Service and the Bureau of Land Management. 2005): no shade producing vegetation within the “primary shade zone” (estimated to be no more than 60’ from the active stream channel in all cases) of perennial streams would be cut or removed. Canopy closure in the secondary shade zone would be reduced to no less than 50% (2007 Beeline Hydrology/Channels/Water Quality Report pg 6, EA section 3.2.2).

## **Forest Stand Characteristics**

*Comment 19: “Is the laminated root rot distinct form that which affects Port Orford Cedar?” (K.S. 2007 pg 4)*

Response 19: Yes, laminated root rot is distinct from the root rot affecting Port Orford cedar. Laminated rood rot, *Phellinus weirri*, has a wide host range including Douglas-Fir, Pacific silver, white, grand fir and others. Port Orford Cedar Root rot, *Phytophthora lateralis*’s only host is Port Orford Cedars.

*Comment 20: “Does “future entries” apply to both Matrix and Riparian Reserves?”(K.S. 2007 pg 4)*

Response 20: Culmination of mean annual increment is projected to be at some time roughly around stand age 67-99. Matrix stands would be assessed for a final harvest in approximately 20 years following thinning. Subsequent entries in the Riparian Reserve would be assessed to determine progress towards meeting ACS objectives. Assessments in the Riparian Reserve would generally be done concurrently with assessments in the adjoining Matrix LUA. The proposed treatments in Riparian Reserves are designed to meet ACS objectives. (Beeline Silvicultural Prescriptions-2007)

## Off-Highway Vehicles

*Comment 21: “We have continuing concerns about the increasing problem of off-highway vehicle (OHV) abuse. The EA states an incredibly oversimplified response to this problem and the potential increase due to logging (EA p. 18)” (Bark 2007 p.4).*

Response 21: The EA addresses unauthorized vehicle use within the timber sale boundaries (EA p. 18). Currently the best management practices available are to use logging slash to control access points such as skid trails. Outside of the timber sale boundaries the issues is actively being addressed under the *Cascades Resource Area Soil Rehabilitation* (December 2006). OHV management is outside the scope of this project.

## Hydrology

*Comment 22: “The hydrologic function section needs to be more specific to this project and more detailed. How wide will the Stream Protection Zone be for project area streams?” (K.S. 2007 pg 3).*

Response 22: The Stream Protection Zone would extend to topographic or ecological breaks with a minimum of sixty feet on each side for the channel for perennial streams and twenty five feet on each side for intermittent streams (EA section 2.2.3).

*Comment 23: “The Colton Water District supplies water to approximately 1,200 citizens. The intake for this supply is on the Jackson Creek [road]. This road should be obliterated and the drinking watershed protection zone should be extended” (Oregon Wild 2007 p. 3-4).*

Response 23: The EA has analyzed the utilization of water within the project area (EA p. 33). The project area is not within a key watershed. In addition, the EA further addresses the short term and long term impacts of increased turbidity due to road repair and hauling (EA p. 37). Road obliteration would not be an option since BLM does not have authority over the road. In addition, several other landowners use this road to access their land. Removing this road would also remove their access. As for extending the drinking water protection zone it is beyond the scope of this EA.

## Bureau Sensitive Species

*Comment 24: “.....this article states past and current timber harvests have led to a larger NSO decline than was expected.” (Bark 2007 pg 8)*

*Comment 25: “Logging disrupts behavior of nesting birds and could harm other aspects of their life needs.” (Oregon Wild 2007 pg 3)*

*Comment 26: “This project should not occur during the NSO nesting period.” (K.S. 2007 pg 6)*

Response 24, 25 & 26: No known spotted owls would be affected by thinning or connected actions. In the short term, disturbance associated with thinning (logging, road-building, etc.) may have temporary effects on the presence or movement of spotted owls. However since thinning would maintain dispersal habitat, the ability of the habitat to accommodate movement of birds after thinning is completed would be maintained.

Seasonal restrictions on habitat modification activities (felling, yarding, and road building) would minimize the risk of disturbance to any unknown northern spotted owls (EA Table 7, p. 24). No suitable nesting, foraging and roosting spotted owl habitat is proposed for treatment. In the short term, approximately 400 acres of dispersal habitat would be maintained as a result of thinning, but no habitat would be downgraded to a lower classification. "Maintained" means silvicultural treatments would alter forest stand characteristics, but maintain components of spotted owl habitat within the stand such that spotted owl life history requirements are supported (i.e. the functionality of the habitat used by spotted owls remains intact post treatment) (LOC p. 11). In this case, the functionality of spotted owl dispersal habitat would be maintained after treatment.

Thinning treatments in these dense, uniform stands are expected to have long-term benefits to spotted owls by encouraging late-successional characteristics to develop at least ten years more rapidly than they would be expected to develop without treatment (LOC pp. 19). (EA section 3.2.5)

*Comment 27: "The presence of the very rare Noble polypore [Bridgeoporus nobilissimus] is an exciting development. The management recommendations for the Noble polypore require a 600 acre buffer until the area can be fully surveyed AND a management plan developed for the site" (Oregon Wild 2007 p. 1).*

*Comment 28: "...how many viable fruiting bodies of Bridgeoporus nobilissimus are there?" (K.S. 2007 pg. 4)*

Response 27 and 28: The project area was thoroughly surveyed and a subsequent 50 foot radius buffer was placed around each fruiting body which is in compliance with management plan for the fungi (EA p. 29 and 31). The Management Plan titled, *Bridgeoporus nobilissimus at Goat Mountain* can be found at the following website as well as additional information about the fungi; <http://www.fs.fed.us/r6/sfpnw/issssp/species-index/flora-fungi.shtml>. There are 12 sites that have been identified in the Beeline timber sale.

*Comment 29: "The project sites do contain marginal habitat for Red Tree Voles, so survey should proceed thinning work, even if not required." (K.S. 2007 pg 6)*

Response 29: Though the project area is within the Northern mesic zone of the Red Tree Vole range, none of the stands that would be thinned meet the stand-level criteria as described in the red tree vole survey protocol (Biswell et al 2002). In addition, the project area falls under an exemption issued in the October 11<sup>th</sup> 2006, modification injunction in Northwest Ecosystem Alliance et al. v. Rey et al., which makes an exemption for thinning projects in stands under 80 years of age (Wildlife Report-2007 p. 9).

*Comment 30: "Bark believes that the presence of the Oregon Slender Salamander in the Beeline Project is enough cause to prepare a more thorough evaluation of the impacts logging will have on this species' habitat" (Bark 2007 p. 2).*

Response 30: The EA recognizes the Oregon Slender Salamander is expected in portions of the project areas, and evaluates the impacts of the project on the species (EA p. 46, 50). The EA also addresses the design features that will mitigate impacts to the species' (EA p. 50).

## Fire

*Comment 31: “Logging this area will result in drier conditions, and increase the levels of slash,... What can be expected to happen if fire should come through this area within the next few years.” (Bark 2007 pg 6)*

*Comment 32: “Given that most forest fires are human started on or near roads it seems unwise to create drier conditions with increased levels of highly flammable fuel loads in the area.” (Bark 2007 pg 7)*

Response 31 and 32: The commenter overstates the amount of drying that would occur. The project retains most of the shade. EA section 3.2.6 states: The most common source of fire starts in the Cascades Resource Area is lightning, followed by human caused fires. In the Wildland/Urban Interface (WUI) and along roads open to public access, the potential for a human caused start are highest, along with the potential costs. The proposed thinning projects range from stands located along open roads and within WUI to areas behind locked gates<sup>4</sup>. The current strategy to reduce the risk of a human ignition is to reduce fuels in accessible areas and/or decrease access during periods of high risk. The current strategy to reduce the risk of a fire start (both natural and human caused) from becoming a large fire is aggressive initial attack through a contract with the Oregon Department of Forestry and their fire protection resources. Existing forest roads in these areas provide access for fire control.

The primary purpose of a fuel treatment is not to stop fires, but to change the behavior of a fire entering a fuel-altered zone, thus lessening the impact of that fire to an area of concern. This change in fire behavior is often quantified as a reduction in flame length, intensity, or rate-of-spread, and manifested as a change in severity or growth of the fire.

This is best achieved by fragmenting the fuel complex and repeatedly disrupting or locally blocking fire growth, thus increasing the likelihood that suppression will be effective or weather conditions will change. (Stratton, 2004)

*Comment 33: “The EA shows results of “Modeling Predictions of Fire Regimes for the Project Areas.” There is no discussion of the basis for these predictions. What does this prediction include for consideration?” (Bark 2007 pg 6)*

Response 33: Fire regime modeling takes into account the past fire history, fire return intervals, fire intensity, present condition and potential for human caused fires in that area. The forest stands in the proposed project areas have not experienced fires for many decades. In the Beeline project area is approaching the fire return interval for the fire regime in the area. The combination of existing dead fuels and stand conditions (especially crown density) in these stands could sustain surface and crown fires.

In 2006, large (>700 acres) lightning caused fires occurred within 10 miles of both project areas and smaller fires started by lightning and people were controlled by initial attack (EA 3.2.6.).

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<sup>4</sup> Units 1, 5, 6, and 7 (332 acres) are behind locked gates. These units account for 85% of the project acreage.

*Comment 34: “The table states that fuel treatments for these units will include burning. Elsewhere, the text says there will be no burning in Riparian Reserves, so as to contribute CWD to the riparian environment. Please clarify....will all the burning in these units occur outside the Riparian Reserves? If so, how wide are the buffers in these units?” (K.S. 2007 pg 3)*

Response 34: Each unit proposed for fuel treatment does contain a portion of Riparian Reserves within it. Burning for these units will occur in the portions not designated as Riparian Reserve. Riparian Reserve widths are approximately 200 feet in the affected areas (180-220 feet). Burning is limited to burning piles during the wet time of year (EA pp. 22, 24, 43, 55).

*Comment 35: “what are 1000 hour fuels? Stand density is 70 what? For what size area? Fuels treatment would reduce the relative density to 45-55 what? (K.S. 2007 pg 6)*

Response 35: 1000-hour fuels is a term to physically characterize fuel size. A 1000 hour fuel is generally 3-8 inches in diameter that takes approximately 1000 hours to dry out after the dry season begins. Stand density in the project area ranges from 65% to 95% and relative density after fuel treatment would be 45- 55% for the unit areas observed. Relative density is a measure of tree crowding compared to a reference level such as normal density. These stands are currently between 65% to 95% and optimum conditions for reducing the likelihood of crown fires in Douglas fir is a relative stand density of less than 45-55% which this thinning accomplishes.