

Gordon Creek Thinning III Timber Sale

Final Decision and Decision Rationale

Environmental Assessment Number (EA) # OR080-07-05

April 2011

United States Department of the Interior
Bureau of Land Management, Oregon State Office
Salem District, Cascades Resource Area
Gordon Creek 6th field Watershed.
Multnomah County Oregon

Willamette Meridian,
T. 1 S. R. 5 E., Section 1

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BLM/OR/WA/AE-11/032+1792

1.0 Introduction

The Bureau of Land Management (BLM) has conducted an environmental analysis for the Gordon Creek thinning project, which is documented in the following Gordon Creek NEPA documents, which are incorporated here by reference.

Table 1: Gordon Creek EA and EA Revisions

<i>Date Issued</i>	<i>Document</i>	<i>Public Review Period</i>
9/26/2007	Gordon Creek Thinning EA and FONSI (referred in this Decision Rationale (DR) as 2007 EA)	09/26/2007-11/16/2007
03/17/2009	Gordon Creek Thinning Revised EA and FONASI (referred in this DR as 03/2009 Revised EA) ¹	03/18/2009-04/06/2009
11/25/2009	December 2009 Gordon Creek Thinning Revised EA and FONASI (referred in this DR as the 12/2009 Revised EA) ²	12/02/2009-12/19/2009

¹The 03/2009 Revised EA incorporated and revised the 2007 EA clarifying the Proposed Action and the associated effects of the Proposed Action.

²The 12/2009 Revised EA incorporated and republished the 03/2009 Revised EA replacing the analysis on carbon and climate change with an updated site specific analysis on carbon storage and climate change.

In November 2009, BLM updated the 03/2009 Revised EA to address comments about Carbon Sequestration and Climate Change. The 12/2009 EA was made available for additional public review December 2, 2009. The decision for the Gordon Creek Thinning III timber sale is documented in this Final Decision and Decision Rationale document (DR). This decision is based on site-specific analyses in the EAs described in Table 1, the supporting project record, public comment, and management direction (DR sections 5.0, 6.0 and 7.1). The DR responds to comments received concerning the Gordon Creek III timber sale, and reviews and affirms the latest Finding of No Additional Significant Impact documented in the 12/2009 revised EA, signed November 25, 2009. Unless otherwise specified, EA page numbers are from the 12/2009 Revised EA.

The Gordon Creek Thinning project (EA # OR080-07-05) has been divided into three timber sales. Gordon Creek Thinning III is the third of these timber sales. This decision is limited to the Gordon Creek Thinning III timber sale, which is located in the T. 1 S., R. 5 E., Section 1, W.M.

2.0 Decision

I have decided to implement Gordon Creek Thinning III as a timber sale consisting of three of the fourteen units of the Proposed Action described in the EA (EA pp. 12-31, 33). The units I will implement in the Gordon Creek Thinning III timber sale are EA units 1A, 1B, and 1C. The following is a summary of the decision, hereafter referred to as the “Selected Action” in this DR (DR Tables 4-6, and the map on DR p. 15). The Selected Action will:

2.1 Timber Harvest

- Thin 453 acres of 55-70 year old forest stands: 336 acres within the Matrix land use allocation (LUA) of the Salem District Resource Management Plan (1995 RMP p. 8); and 117 acres within the Riparian Reserve LUA (1995 RMP p. 8, DR sections 5.0, 8.0).

2.2 Logging Systems

- Harvest approximately 415 acres of thinning (all units) using ground-based yarding.

- Harvest approximately 38 acres of thinning (Units 2 and 3) using directional felling and a low impact yarding method to minimize soil disturbance. The contract clause “special yarding” will be stipulated. The effects of this yarding system are covered in effects of skyline yarding-ground based swing skidding in the EA (EA pp. 21-23, 73-76, 96-97, 99-100).

2.3 Road Work and Haul

- Construct approximately 0.26 mile of new roads to accommodate logging equipment and log transport. All vegetation will be cleared within the 22 foot wide road right-of-way (EA p. 98).
- Improve approximately 1.01 miles of road to the minimum standard necessary for hauling, including spot rocking, blading, and brushing, curve alignment, and tree removal.
- Block and stabilize all newly constructed and improved natural surface roads. Stabilizing entails installing water-bars or other shaping of roads for drainage, placing woody debris, and/or seeding. Earth and debris berms will be used to block these roads.
- Renovate approximately 3.11 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.
- Remove the log fill and install one temporary culvert at the stream crossing in the SW ¼ of T.1S. R.5E. section 1. The culvert will be removed after logging operations.
- Install one temporary stream crossing on private land in T.1N. R.5E. section 36. The culvert will be removed after logging operations.

2.4 Fuels Treatments

The Selected Action will treat 47 acres of thinning slash within units 1, 2, and 3 by mechanical or hand piling slash along roads and property lines (see map on DR p. 15). Within 30 feet of the edge of each landing all tops, broken pieces, limbs and debris over 1 inch in diameter and longer than 3 feet will be piled and covered. Piles will be a minimum of 20 feet away from residual trees. Piles will be burned in compliance with the Oregon Smoke Management Plan after thinning operations have been completed and fall rains have begun.

2.5 Controlling Public Access

The Gordon Creek Thinning III Timber Sale contract will require the purchaser through contract obligation to secure the area while timber sale operations are active by locking or controlling access at the existing gate system that currently secures the area. When operations are not active in section 1, BLM will cooperate with the Corbett Water District and private landowners to ensure the gates that control access to the Corbett water treatment facility and water intakes and to private property are secured to prevent unauthorized access (EA pp. 19, 20, 30, 31).

2.6 Special Forest Products

The BLM will sell permits for collecting Special Forest Products (SFP) (1995 RMP p. 49) from the harvest units if there is a demand for the products, and collection will not interfere with proposed project operations.

Special Forest Products are salable natural products that can be found in the forest and may include: edible mushrooms, firewood, posts and poles, and transplants of native plants. Access to the area will be controlled through the Special Forest Product permit requirements.

2.7 Design Features

Project Design Features described in EA section 2.3.4 (EA pp. 20- 31) will be addressed in the timber sale contract. The interdisciplinary team of resource specialists (IDT) has updated the project design features described in the EA. The following is summary of the updated project design features.

1. **To protect water quality, aquatic habitat and fisheries (including ESA listed fisheries)**
Design features include: a) maintaining areas of undisturbed vegetation between streams and harvest areas, also known as stream protection zones (SPZ). The stream protection zones have been expanded from the Proposed Action on the North Fork of Gordon Creek. Stream protection zones range from 200-1000 wide on the North Fork of Gordon Creek, above the water intake (See Table 2, and the map on DR p. 15); b) constructing, improving, renovating and stabilizing roads during dry conditions; c) stabilizing, and controlling access to all new roads upon project completion; d) restricting hauling to times and road conditions that reduce the risk of sediment entering streams; and e) prohibiting winter haul.

Table 2: Stream Protection Zones for the Gordon Creek Thinning III Timber Sale

<i>Type of Stream</i>	<i>Stream Protection Zone width in feet</i>
N Fork Gordon Creek (upstream from the water intake)	200-1000
N Fork Gordon Creek (downstream from the water intake)	At least 100
Perennial stream (west of Gordon Creek)	At least 60
Intermittent streams	At least 30

2. **Protection of Corbett water facilities and public safety/access:** Design features include: a) maintaining locked gates according to requirements of the road owners during operations and when the project operations are completed; b) requiring the operator to observe a ten miles per hour (10 MPH) speed limit for all vehicles across BLM land in section 3 between 200 feet east of the Corbett Water Treatment Plant and 200 feet west of the Larch Mountain Education Site trailhead; c) prohibiting log hauling operations on Road 1-5E-3 east of the junction with Road 1-5E-02.3 at all times to avoid potential impacts to the North Fork water intake facility and pipeline; and d) requiring the operator to develop and implement a dust abatement plan to prevent dust from logging and log hauling operations from impacting the Corbett water treatment plant and the Larch Mountain Environmental Education Site trailhead.
3. **To protect soil productivity:** Design features 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; and e) burning piles when soils are wet and less susceptible to heat damage.

4. **To protect and enhance the residual stand, stand diversity, and wildlife habitat components:** Design features include: a) retaining all old growth trees, most large snags, most hardwoods, representative minor tree species, hardwoods, and cull / deformed trees; b) retaining existing coarse woody debris (CWD) intact whenever feasible; c) maintaining minimum canopy closures of 40 percent in Matrix and 50 percent in Riparian LUAs; and d) restricting operations during the spring growing season when the bark of retained trees is easily damaged.
5. **To protect against expansion of invasive and non-native plant species:** Design features include: a) cleaning equipment to prevent importing off-site plants; and b) using only native species seed and sterile mulch to stabilize disturbed soil.
6. **To protect special status plant and animal species:** a) Design features include: shutting down or restricting operations after finding plant or animal populations that require protection; b) *northern spotted owl*: prohibiting operations within disruption distance (0.25 mile for most activities) of known spotted owl sites during the NSO critical nesting season, March 1 – July 15, as required by the Letter of Concurrence (LOC), Definitions and General Standards (pp. 13-15). This PDF applies to unit 2 (EA unit 1B).
7. **To reduce fire hazard risk and protect air quality:** Design features include: a) treating activity fuels (woody debris that could contribute to fire spread) adjacent to property lines in Rural/Urban Interface areas; b) burning in compliance with the Oregon State Smoke Management Plan; and c) closing or gating roads and maintaining locked gates to reduce fire risk.
8. **To protect cultural resources:** Design features include: shutting down or restricting operations after finding cultural resources that require protection.

3.0 Alternatives Considered

1. No Action (EA p. 34): No commercial timber management actions will occur. Only normal administrative activities and other uses (e.g. road use, programmed road maintenance, harvest of special forest products) will continue on BLM land within the project area.
2. Proposed Action (EA pp. 13-31, 33): First documented in the 2007 EA, the Proposed Action was revised in the March 2009 EA and is now a proposal to commercially thin 1724 acres of overstocked 52-74 year old forest stands. Approximately 1324 of these acres are in the GFMA portion of the Matrix LUA, and 400 acres in the Riparian Reserve LUA. EA Sections 2.6 (Tables 4 and 5, EA p. 33), and 2.9 (EA p. 35-39) show the changes in the Proposed Action from the 2007 EA.
3. Alternatives 2 (2007 EA p. 23; EA pp. 32-33): The silvicultural prescription is the same as other action alternatives, but considers helicopter logging instead of skyline and ground based logging on approximately 575 acres to minimize road construction and renovation compared to the Proposed Action (EA p. 33).
4. Alternative 3 (2007 EA p. 24; EA pp. 32-33): The silvicultural prescription is the same as other action alternatives but considers helicopter logging instead of skyline and ground based logging on approximately 200 acres to reduce road construction and renovation compared to the Proposed Action (EA p. 33).

5. Alternatives considered but not analyzed in detail (EA pp. 34-35): Alternatives were considered for: regeneration harvest in some or all units; skyline yarding across Gordon Creek and other live streams to reduce road construction; variable density thinning in Matrix; and prohibiting winter hauling in section 12.
6. Selected Action (DR sections 2.0, 8.0, DR Tables 4, 5, 6, the map on DR p. 15, DR section 9.1): EA units 1A, 1B, 1C of the Proposed Action, #2, above have been selected to form the Gordon Creek Thinning III timber sale. This timber sale is a proposal to thin approximately 453 acres of 55-70 year old mixed conifer stands (EA Table 19, EA p. 153). I expanded the stream protection zones above the Corbett water intake on the north fork of Gordon Creek in response to public concerns over domestic water quality.

4.0 Decision Rationale

Considering public comment, the content of the Gordon Creek EAs, the supporting project record, and the management direction contained in the 1995 RMP, I have decided to implement the Selected Action as described in DR section 2.0. The following is my rationale for this decision. The Selected Action:

- Protects water quality and Corbett's water facility infrastructure;
- Fulfills the need for the project described in EA section 1.2.1, EA p. 2.
- Achieves Objectives 1, 2, 3, 5, 6 and 7 of the purpose of the project described in EA section 1.2.2, EA pp. 2-3.
- Partially achieves Objective 4 of the purpose of the project described in EA section 1.2.2, EA p. 3.
 - Objective 4 will not be achieved on 43 acres of Riparian Reserve stands originally proposed for treatment due to the expansion of stream protection zones above the intake in response to public concerns over water quality (DR section 3.0 - #6, DR Table 5). This results in a reduction of 43 acres of habitat enhancement thinning in Riparian Reserves above the intake. Management objective 4 will not be met on these acres because current overcrowded stand conditions and stand development trajectory will be maintained (EA pp. 119, 146, 148).
 - Objective 4 will be achieved on the 117 acres of Riparian Reserve thinning in the Selected Action (DR Tables 4, 5). (EA pp. 109-111, 146, 148)
- Is consistent with the Salem District Record of Decision and Resource Management Plan and related documents which direct and provide the legal framework for management of BLM lands within the Salem District (EA pp. 4-8, DR sections 5.0, 7.1);
- Is responsive to concerns for an economically efficient project (DR section 9.11);
- Is responsive to public input (DR sections 9.1- 9.4, and 9.7);
- Decreases potential for stand replacement fires and improves fire suppression opportunities by treating slash along open roads and providing controlled access for fire suppression with gated roads (EA p. vii, 29, 30, 124-127);
- Will not contribute to the expansion of invasive/nonnative weed populations (EA pp. vi, 28, 55, 56);
- Will not have a significant impact on the affected elements of the environment beyond those already anticipated and addressed in the RMP EIS (EA FONASI, pp. v-x);

- Uses the minimum transportation system to facilitate implementation of the project (DR section 2.3); and
- Will have no effects on ESA listed fish or their occupied habitat (DR section 6.4).

I compared the Selected Action along with the EA alternatives in the context of the Decision Factors described in the EA, p. 4 and have documented the results in Table 3.

Table 3: Comparison of the Alternatives by Decision Factors and Project Objectives

<i>Decision Factors and Project Objectives</i>	<i>Comparison of Alternatives</i>
<p>a. Provide timber resources and revenue to the government from the sale of those resources (objectives 1 and 2);</p> <p>b. Reduce the costs both short-term and long-term of managing the lands in the project area objectives 1 and 2); and</p> <p>c. Provides safe, cost-effective access for logging operations, fuels management and fire suppression (objectives 2, 6, and 7)</p>	<p>The No Action Alternative does not meet decision factors a, b, and c since no timber sale will take place.</p> <p>All action alternatives meet decision factors a, b, and c. All action alternatives provide timber resources to the market. Alternative 2 is the least cost effective, providing the least revenue, with the most logging costs. Alternative 3 falls between the other action alternatives. The difference between the alternatives is the economic viability of helicopter logging systems compared to skyline and ground based logging systems. (EA p. 33). The Proposed Action is the most cost effective EA alternative, providing the greatest revenue with the least logging costs. The Selected Action consists of units 1A, 1B, and 1C of the Proposed Action.</p>
<p>d. Reduce competition-related mortality and wildfire risk, and increase tree vigor and growth (objectives 1 and 7)</p>	<p>The No Action Alternative does not meet decision factor d. All action alternatives meet decision factor d. (EA pp. 53-61, 109, 119, 125, 127, 148).</p>
<p>e. Protect the community of Corbett’s water supply (objective 3)</p>	<p>All alternatives meet decision factor e. The Selected Action implements the widest buffers above the community of Corbett’s water supply intake (DR Table 2). Under the action alternatives, road use requirements are expected to prevent damage to pipelines and the treatment facility. Water quality will be maintained and protected to the legal standards set by Oregon State Law under the Clean Water Act. (EA pp. vii, 30-31, 130, 132).</p>
<p>f. Reduce erosion and subsequent sedimentation from roads (objectives 3 and 6)</p>	<p>All alternatives meet decision factor f. Under the action alternatives, roads will be maintained, reducing the risk of erosion and sedimentation associated with the existing road system. Road construction, improvement, renovation and stabilization will take place during dry conditions. See e., above. (EA pp. vi, 3, 21-27, 70-77, 78-80)</p>
<p>g. Provide for the establishment and growth of conifer species while retaining structural and habitat components, such as large trees, snags, and coarse woody debris (objectives 4 and 5);</p> <p>h. Promote the development of healthy late-successional characteristics in the Riparian Reserve LUA (objective 4)</p>	<p>The No Action Alternative partially meets decision factors g and h. Under the No Action Alternative, stand health and tree growth rates are expected to decline over time if stands are not thinned. Competition will result in mortality of smaller trees and some co-dominant trees in the stands. This alternative retains existing elements, but does not enhance conditions to provide these elements for the future stand. Trees will continue to grow slowly until reaching suitable size for large woody debris, snags and late successional habitat.</p> <p>All action alternatives meet decision factors g and h. Stand health and tree growth rates will be maintained as trees are released from competition. The alternatives retain the elements described under “No Action” on untreated areas of the stands in the project area, and encourage development of larger diameter trees and more open stand conditions in treated areas. These conditions add an element of diversity to the landscape not provided on BLM lands under the No Action Alternative.</p> <p>(EA pp. vii, viii, 13-16, 27-28, 36-38, 53-55, 56- 61, 109-111, 116-117, 119, 142-143, 146).</p>

<i>Decision Factors and Project Objectives</i>	<i>Comparison of Alternatives</i>
<p>i. Establish a defensible area for use during extended fire suppression activities and possibly reduce the overall size and intensity of a wildfire (objective 7).</p> <p>j. Reduce potential human sources of wildfire ignition by controlling access (objective 7).</p>	<p>All alternatives meet decision factors i and j. However, under the No Action Alternative, dense forest stands with high crown densities are more susceptible to a high intensity, stand replacement wildfire that escapes initial attack and could threaten the public and other resources. Under the action alternatives, managed, thinned forest stands are less prone to catastrophic wildfires. Fires that do start tend to be easier to control in managed stands (EA pp. vii, 18-19, 29-30, 125-126, 148).</p>

I did not select the following alternatives because:

- The No Action Alternative does not meet the project objectives or delays the achievement of the project objectives described in EA section 1.2 (EA pp. 2-4) and DR Table 3.
- Proposed Action units in sections 13, and 15 and the SW ¼ of the SW ¼ of section 11, will be implemented in the Gordon Creek Thinning I timber sale, documented in the Gordon Creek Thinning I Decision Rationale, issued in April 2009 (4/28/2009) and revised and reissued in February 2010 (2/22/2010). Proposed Action units in sections 3, 9, and the remainder of section 11, will be implemented in the Gordon Creek Thinning II timber sale, documented in the Gordon Creek Thinning II Decision Rationale, issued in May 2010 (5/25/2010).
- Alternative 2 is the least cost effective, providing the least revenue, with the most logging costs compared with the other action alternatives (EA pp. 33).
- Alternative 3 is less cost effective, providing less revenue, with more logging costs than the Proposed Action or the Selected Action (EA pp. 32).

For the reasons described above, the Selected Action best meets the purpose and need and decision factors described in EA sections 1.2 (EA pp. 2-4) and DR Table 3.

5.0 Compliance with Direction

The Salem District initiated planning and design for this project to conform and be consistent with the **1/ Salem District Record of Decision and Resource Management Plan**, May 1995 (1995 RMP); **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 (the Northwest Forest Plan, or NWFP); **3/ Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines**, January 2001 (2001 ROD).

As stated in the 12/2009 Revised EA section 1.3, the analysis in the Gordon Creek Thinning Revised EA is site-specific, and supplements analyses found in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS). The RMP/FEIS includes the analysis from the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, February 1994 (NWFP/FSEIS).

The RMP/FEIS is amended by the *Final Supplemental Environmental Impact Statement for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, November 2000.

Following the March 31, 2011 decision by the United States District Court for the District of Columbia in *Douglas Timber Operators et al. v. Salazar*, which vacated and remanded the administrative withdrawal of the Salem District's 2008 *Record of Decision and Resource Management Plan* (2008 ROD/RMP), we evaluated this project for consistency with both the 1995 RMP and the 2008 ROD/RMP. Based upon this review, the selected alternative contains some design features not mentioned specifically in the 2008 ROD/RMP. The 2008 ROD/RMP did not preclude use of these design features, and the use of these design features is clearly consistent with the goals and objectives in the 2008 ROD/RMP. Accordingly, this project is consistent with the Salem District's 1995 RMP and 2008 ROD/RMP.

Survey and Manage

The Gordon Creek Thinning III project is consistent with court orders relating to the Survey and Manage mitigation measure of the Northwest Forest Plan, as incorporated into the 1995 RMP.

On December 17, 2009, the U.S. District Court for the Western District of Washington issued an order in *Conservation Northwest, et al. v. Rey, et al.*, No. 08-1067 (W.D. Wash.) (Coughenour, J.), granting Plaintiffs' motion for partial summary judgment and finding a variety of NEPA violations in the BLM and USFS 2007 Record of Decision eliminating the Survey and Manage mitigation measure. Previously, in 2006, the District Court (Judge Pechman) had invalidated the agencies' 2004 RODs eliminating Survey and Manage due to NEPA violations. Following the District Court's 2006 ruling, parties to the litigation had entered into a stipulation exempting certain categories of activities from the Survey and Manage standard (hereinafter "Pechman exemptions").

Judge Pechman's Order from October 11, 2006 directs: "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:

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

Following the Court's December 17, 2009 ruling, the Pechman exemptions are still in place. Judge Coughenour deferred issuing a remedy in his December 17, 2009 order until further proceedings, and did not enjoin the BLM from proceeding with projects.

Nevertheless, I have reviewed the Gordon Creek Thinning III project in consideration of both the December 17, 2009 and October 11, 2006 order. Because the Gordon Creek Thinning III project entails no regeneration harvest and entails thinning only in stands less than 80 years old, I have made the determination that this project meets Exemption A of the Pechman Exemptions (October 11, 2006 Order). Therefore this project may still proceed even if the District Court sets aside or otherwise enjoins use of the 2007 Survey and Manage Record of Decision since the Pechman exemptions will remain valid in such case.

6.0 Public Involvement/ Consultation/Coordination

6.1 Scoping

The Gordon Creek project (along with the Beeline and McDowell projects) was included in the 2007 Timber Sale thinning scoping letter sent out to federal, state and municipal government agencies, nearby landowners, tribal authorities, and interested parties on the Cascades Resource Area mailing list on September 29, 2006. Twenty-six (26) comment letters/emails/postcards were received during the scoping period. The BLM also conducted one field trip with Corbett Water Bureau on June 4, 2007. Field trip attendees included members of the Corbett Water District staff, Corbett Water Board, Corbett Community Association, and Oregon Wild.

6.2 EA Comment Periods and Comments

BLM made the 2007 EA and FONSI (Finding of No Significant Impact) available for public review from September 26, 2007 to October 26, 2007. The decision maker extended the comment period to November 16, 2007 in order to incorporate comments received at the Gordon Creek open house, held in Corbett, OR on November 7, 2007. Eleven people attended the open house, including representatives of the Corbett Water District, Corbett Water Board, and the Corbett Community Association. One hundred eighty-two (182) comment letters / emails / postcards were received during the original EA comment period.

Based on the comments, the BLM revised the Gordon Creek EA. Sections 1.4.2 and 1.4.3 (EA pp. 8-11) of the revised EA (March 2009) to address the topics that were raised in the original comments. The BLM made the revised EA and FONASI (Finding of No Significant Additional Impact) available for additional public comment from March 18, 2009 to April 6, 2009. Five comment letters were received during this comment period. Responses to the public comments can be found in section 9.0 of this Decision Rationale.

The BLM revised the EA a second time and made the 12/2009 Revised EA and FONASI available for additional public comment from December 2, 2009 to December 19, 2009. Five comment letters were received during this comment period. Responses to the public comments can be found in section 9.0 of this Decision Rationale. The scoping and EA comment letters/emails/postcards are available for review at the Salem District BLM Office, 1717 Fabry Rd. SE, Salem, Oregon.

6.3 Collaboration with Corbett Water District and Water Board

The BLM entered into a Memorandum of Understanding (MOU) with the Corbett Water District and Water Board in order to address their concerns about BLM management activities potential effects on their water intake and water treatment facilities.

The MOU was signed by the Corbett Water Board and the BLM on April 21, 2009, and outlines Corbett Water District and Water Board's and BLM's responsibilities in the protection of these facilities.

6.4 ESA Section 7 Consultation

1. U.S. Fish and Wildlife Service

The BLM submitted the Gordon Creek Thinning III Project for informal 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) during the FY2011/2012 consultation process. The *Biological Assessment of NLAA Projects with the Potential to Modify the Habitat of Northern Spotted Owls Willamette Planning Province - FY 2011/2012* (BA) was submitted by the BLM in March 2010.

Using effect determination guidelines, the BA concluded that the Gordon Creek Thinning project, may affect, but is not likely to adversely affect the northern spotted owl due to the modification of dispersal habitat (BA, pp. 26, 29). The *Letter of Concurrence Regarding the Effects of Habitat Modification Activities within the Willamette Province, FY2011/2012* (LOC) associated with the Gordon Creek Thinning project was issued by the USFW in June 2010 (reference # 13420-2010-I-0092).

The LOC concurred that the habitat modification activities described in the BA, including the Gordon Creek Thinning III project is not likely to adversely affect spotted owls and are not likely to adversely affect spotted owl Critical Habitat (LOC, p. 38). Furthermore, the Proposed Action is not likely to diminish the effectiveness of the conservation program established under the NWFP to protect the spotted owl and its habitat on federal lands within its range including designated spotted owl critical habitat (LOC, p. 38).

The Selected Action, described in this DR (DR section 2.0), has incorporated the applicable General Standards that were described in the BA (p. 6-8) and LOC (LOC, pp. 13-16). This includes a seasonal restriction within disruption distance of known spotted owl sites during the critical nesting season, and monitoring/reporting on the implementation of this project to the U.S. Fish and Wildlife Service.

2. National Marine Fisheries Service (NMFS)

The Selected Action (Gordon Creek Thinning III timber sale) will have "no effect" on Lower Columbia River (LCR) coho salmon, LCR Chinook salmon, or LCR Steelhead trout. As a result, consultation with NOAA Fisheries on the project effects is not required.

The determination of "no effect" is based on following factors that will prevent increases in sediment input, stream turbidity, temperature, and changes in large woody debris (LWD) supplies to stream reaches potentially occupied by ESA listed fish species (EA pp. 70-72, 82, 86-88). The project is at least 2.25 miles from ESA listed fish habitat and will not change stream shade. Sediment inputs associated with road construction/renovation, and timber haul will not reach ESA listed fish habitat.

The Selected Action will implement the following design features that that will prevent any decrease in stream shade on perennial streams so that there will be no increase in stream temperature from increased sun exposure.

The Selected Action will establish stream protection zones (where no cutting or logging will take place) that are a minimum of 60 feet wide on each side of perennial streams to protect the primary shade zone, and range from 100 feet wide on North Fork Gordon Creek downstream of the water intake, to 200-1000 feet wide above the water intake.

The Selected Action will also maintain 50-60% canopy closure in the remainder of the Riparian Reserve LUA (220-440 feet each side of streams) which includes the secondary shade zone of these streams (EA, pp. 70, 86).

LWD recruitment to project area streams is expected to improve long term as a result of accelerated tree growth resulting from reducing tree density in Riparian Reserves (EA, p. 86). However, LWD will be unlikely to move downstream to listed fish habitat because of the small size of project area streams and distance to listed fish habitat (EA, pp. 81-82).

The Selected Action incorporates road construction on flat to gently sloping ground with no hydrologic connectivity to streams, and no stream crossings. Thus, no pathway will exist for delivery of sediment to streams generated by road construction or use (EA, p. 71). Upon project completion these roads will be closed, stabilized, and revegetated. Log hauling will not impact listed fish habitat because roads are well graveled and site specific monitoring will be used to suspend log hauling whenever conditions will potentially introduce sediment into streams (EA, p. 24). Additionally, the nearest stream crossing on the haul routes is about two miles upstream of listed fish habitat, and any sediment potentially reaching streams at haul route crossings will likely move < 0.5 mile downstream (EA, pp. 72, 87-89).

7.0 Conclusion

7.1 Review of Finding of No Significant Impact

I have reviewed the information in the 12/2009 Revised EA and FONASI, the 2007, 3/2009 and 12/2009 EA public comments, and this Decision Rationale. Based on this review, I have determined that that the Selected Action is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, supplemental or additional information to the analysis in the RMP/FEIS in the form of a new environmental impact statement is not needed.

I have determined that change to the Findings of No Additional Significant Impact (EA #OR080-07-05 12/2009 FONASI – pp. v-x) covering the Gordon Creek Thinning project, including the Gordon Creek Thinning III timber sale, is not necessary for the following reasons.

There is no significant new information in the 12/2009 Revised EA, in this Decision Rationale, or in the public comments on the 2007, 3/2009 and 12/2009 EAs that leads me to believe the analysis, data or conclusions related to environmental effects of the Proposed Action are in error or that the Selected Action needs to be altered. My response to the 2007, 3/2009 and 12/2009 EA comments can be found in DR section 9.0.

7.2 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. The notice for this decision will appear in the *Sandy Post* newspaper on April 27, 2011. The planned sale date is May 25, 2011.

To protest this decision a person must submit a written protest to Cindy Enstrom, Cascades Field Manager, 1717 Fabry Rd SE, Salem, Oregon 97306 by the close of business (4:30 p.m.) on May 12, 2011. The regulations do not authorize the acceptance of protests in any form other than a signed, written and printed original that is delivered to the physical address of the advertising BLM office. The protest must clearly and concisely state the reasons why the decision is believed to be in error. Any objection to the project design or my decision to go forward with this project must be filed at this time in accordance with the protest process outlined above.

If a timely protest is received, this decision will be reconsidered in light of the statements of reasons for the protest and other pertinent information available and the BLM shall serve a decision in writing on the protesting party (43 CFR 5003.3).

Implementation Date: If no protest is received within 15 days after publication of this Decision Record (Gordon Creek Thinning III Timber Sale DR) this decision will become final. For additional information, contact Chris Papen (503) 375-5633, Cascades Resource Area, Salem BLM, 1717 Fabry Road SE, Salem, Oregon 97306.

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

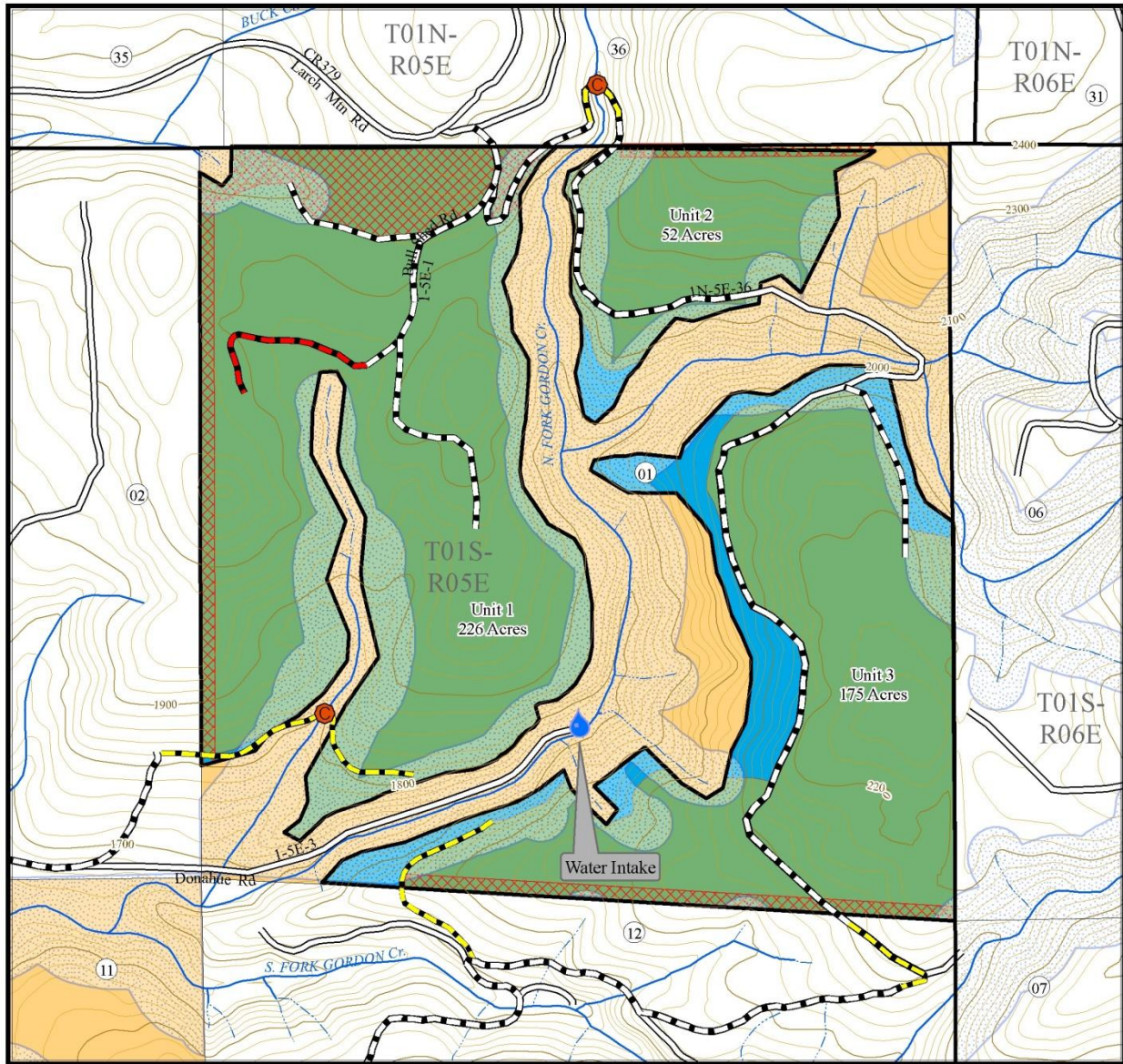
Date April 6, 2011

Gordon Thinning III Selected Action

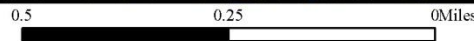
Decision Rationale EA No. OR080-07-05

T. 1S, R. 5E, Section 1 W. M. - SALEM DISTRICT - OREGON

Figure 1 of 1



Contour Interval: 20'



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

- Temporary Culvert
- New Construction
- Thinning Unit Boundary
- Improve Road
- Special Yarding
- Renovate Road
- Ground-Based yarding
- Existing road
- Fuel Reduction Area
- Intermittent Stream
- Riparian Reserve LUA
- Perennial Stream
- BLM Land

March 25, 2011
Bureau Of Land Management
Salem District Office
Cascades Resource Area



8.0 Selected Action

Table 4: Comparison of the Selected Action with the EA Proposed Action by Action

<i>Action</i>		<i>Acres</i>			
		<i>EA Proposed Action¹ in T.1S. R5E. Section 1</i>	<i>Selected Action² in T.1S. R5E. Section 1</i>	<i>Difference</i>	
Commercial Thinning (Acres)	Matrix Land Use Allocation (GFMA)	346	336	-10	
	Riparian Reserve Land Use Allocation	177	117	-60	
	Total Commercial thinning	523	453	-70	
Logging System (Acres)	Ground-Based	403	415	12	
	Special Yarding	0	38	38	
	Skyline – Uphill, One-end suspension	120	0	-120	
Road Work	Road Access	New road construction (miles) includes vegetation clearing within the 12 ft. wide road right-of-way	0.91	0.26	-0.65
		Road Improvement (miles)	0.99	1.01	0.02
		Road Renovation (miles)	3.46	3.11	-0.35
	Culverts	Log fill Removal and temporary stream crossing in SW ¼ of T.1S.,R.5E., section 1. (#)	1	1	0
		Temporary Stream Crossing on private land in T.1N., R.5E. section 36. (#)	1	1	0
Fuels Treatments (Acres)	Pile Burning (hand pile and machine pile)	394			

¹ Preliminary mapping used for EA analysis by the Interdisciplinary Team (IDT) is based on information in the GIS data base and initial reconnaissance.

² The Selected Action units are based on final unit boundary layout based on further field reconnaissance. Selected acres have been computed using Global Positioning System surveys of actual treatment boundaries.

Table 5: Comparison of the Proposed and Selected Action with Regard to the Riparian Reserve LUA

	<i>Section 1</i>	<i>N. Fork Gordon Creek above the domestic water intake</i>
Riparian Reserve LUA Acres	277	168
Selected Action - Riparian Thinning Acres	117	57
Selected Action - Riparian LUA acres in Stream Protection Zones	160	111
<hr/>		
Riparian Reserve LUA Acres	277	168
EA Proposed Action - Riparian Thinning Acres	177	100
EA Proposed Action - Riparian LUA acres in Stream Protection Zones	100	68
<hr/>		
Selected Action - Riparian Thinning Acres	117	57
EA Proposed Action - Riparian Thinning Acres	177	100
Difference between the Selected action and the EA Proposed Action	-60	-43
<hr/>		
Selected Action - Riparian LUA acres in Stream Protection Zones	160	111
EA Proposed Action – Riparian LUA acres in Stream Protection Zones	100	68
Difference between the Selected action and the EA Proposed Action	60	43

Table 6: Selected Action by section, unit, LUA and yarding method

Stand Age	EA Unit Acres	EA Unit	Timber Sale Unit	Timber Sale Unit Acres	Thinning by LUA and Harvest Method				New Road Construction*
					Special Yarding		Ground Based Yarding		
					Riparian Reserve	Matrix	Riparian Reserve	Matrix	Matrix
55-70	253	1A	1	226	0	0	61	165	0.26
	63	1B	2	52	3	0	15	34	0
	207	1C	3	175	19	16	19	121	0
Total Acres	523			453	22	16	95	320	0.26
Riparian Reserve LUA = 117 acres Matrix LUA = 336 acres					Special yarding = 38 acres Ground based yarding = 415 acres				

0+ indicates less than 0.5 acre. 0.5 acre is rounded to 1. * includes clearing vegetation in the 22 ft. wide road right-of-way.

9.0 Response to EA Comments

After reviewing the comments I received following the EA comment period (September 26-November 16, 2007), I revised the Gordon Creek EA (DR sections 1.0. 6.0) and provided an additional two week review period (March 18 – April 6, 2009) to which I received additional comments. After the completion of the December 2009 EA, I provided an additional comment period on the Carbon Storage/Climate Change analysis found in the 12/2009 Revised EA. All references to EA page numbers in this section refer to the 12/2009 Revised EA, which contains the 3/2009 Revised EA in its entirety and supersedes the 2007 EA.

The Gordon Creek Thinning III timber sale consists of a portion of the area that was analyzed in the EA (EA units 1A, 1B, and 1C). My response to comments will address only those comments that pertain to the Gordon Creek Thinning III timber sale. Having reviewed all of the comments I have summarized them into the following categories: **1/**Water Quality, **2/** Protection and Security of Corbett Water District Facilities, **3/**Road Densities/Road Construction, **4/**ESA Listed Species-Fish, **5/** Cumulative Effects Analysis **6/** Riparian Management and Aquatic Conservation Strategy, **7/** Late –Successional Forest/Dead Trees/ Old Growth / Variable Density Thinning, **8/** ESA Listed Species-Northern spotted Owl, **9/**Special Status Species (excluding ESA threatened/endangered species), **10/** Windthrow, **11/** Economic Viability of Timber Sale, **12/** Invasive Non-Native Plants, **13/** Carbon Storage/Climate Change, **14/**Spotted Owl Recovery Plan/WOPR, **15/**BLM Land Use Allocations and Range of Alternatives, and **16/**Access to Stands during Comment Period.

9.1 Water Quality (EA Issue 1)

Comments include:

- *Doubts that the proposed project design will protect domestic water sources;*
- *Concerns that adverse effects on water quality could affect public health and safety;*
- *Concerns about the adequacy of 60 ft. buffers on Gordon Creek to protect water quality; and*
- *Concerns about operations on steep slopes.*

Response: There will be no adverse effect on water quality or public safety for the following reasons. The EA described project design features that will retain or enhance the existing shade component on all streams adjacent to harvest units in section 1.

During final on-the-ground layout I applied buffers, shown in DR Table 2 that met and exceeded the minimums required for retaining existing shade.

The risk of stream sedimentation is low because the terrain is generally flat to gently sloping (less than 35 percent, not exceeding 60 percent¹) resulting in little to no risk for soil movement or erosion. Undisturbed soil and vegetation in the stream protection zones (SPZ) will filter potential sediment associated with skidding or yarding before it reaches any streams. Even though the risk of stream sedimentation is low I responded to public concerns about water quality for the community of Corbett's domestic water by applying stream protection zones on approximately 66% (111 acres) of the total riparian reserve land use allocation above the water intake in Section 1 (168 acres). These protection zones range from 200-1000 feet wide (see the map on DR p. 15).

Runoff from existing roads will be diverted away from streams or sediment will be trapped. Project design features include a contract requirement prohibiting operations when they will generate sediment that could enter streams. The new road construction has no connectivity to streams.

- *Questions about who will monitor turbidity and notify Corbett water district.*

Response: The BLM will monitor turbidity in accordance with the MOU with the Corbett Water District and Water Board. See DR section 6.3. In the MOU, BLM has agreed to ensure land management activities and decision meet the intent of the MOU (MOU p. 3); control non-point source pollution, provide advance notice to prior to implementing projects; monitor sediment and erosion control measures and communicate with the Water District should excessive sediment occur (MOU p. 4).

Water Quality is also addressed in the EA, pp. vi, 3, 8, 20-27, 30-31, 37, 68-80.

9.2 Protection and Security of Corbett Water District Facilities (EA Issue 1)

Comments include:

- *Concerns regarding the potential for damage to Corbett Water District water treatment facilities and water delivery systems by logging and log hauling operations and/or by potential unauthorized access vandalism (EA Issue 1, EA p. 9).*

Response: The Corbett water treatment facility is located on BLM land in section 3 under a permit issued to the Corbett Water District by the BLM. Access to the general vicinity of the Gordon Creek Thinning III project area is controlled by privately owned gates. Access on the road leading to the water treatment facility is controlled by a gate which is jointly managed by BLM and the Corbett Water District. An additional gate into the water treatment facility compound is under the exclusive control of the Corbett Water District.

The Gordon Creek Thinning III Timber Sale contract requires the purchaser through contract obligation to secure the area by locking or controlling access at the existing gate system that currently secures the area.

¹ Less than 5 % of the sale area is between 35% and 65% slope (Table 8, EA pp. 94) based on GIS data. No areas steeper than 60% were found in field observations during sale preparation.

When operations are not active in section 1, BLM will cooperate with Corbett Water District to ensure the gates that control access to the water treatment facility and the water intakes upstream of the sale area are secured to prevent unauthorized access (DR section 2.5). In addition to the terms and conditions of the permit for the water treatment facility and related infrastructure, the BLM has entered into a Memorandum of Understanding (MOU) with the Corbett Water District to protect the water delivery infrastructure. See DR section 6.3.

9.3 Road Densities/Road Construction (EA Issue 1)

Comments include:

- *Concerns new road construction in addition to the existing roads would have adverse effects on water quality;*
- *Requests that the BLM minimize new construction miles and monitor turbidity from road construction;*
- *Concerns about the erosion potential of dirt roads during a rain event.*

Response: The EA addressed the impacts of the new road construction on sediment movement, water quality and peak flows (EA pp. 61-80). The BLM designed the proposed road system for the Gordon Creek Thinning III timber sale to balance management (purposes for the LUA as described in the 1995 RMP), environmental (protection of resources), operational (safe and feasible logging) and economic (successful timber sale and value of timber at harvest) objectives.

Preventing erosion and the resulting sedimentation into streams is a critical element in BLM's design and use of roads. The new road construction will be designed and located to reduce the risk of erosion. The new road construction (road 1-5E-1.2) will be located on flat to gentle slopes, away from streams and potentially unstable slopes, will have no connectivity to streams and will be closed, stabilized and revegetated after logging operations (EA pp. vi, 8, 20-27, 30-31, 70-80, DR section 2.0, and the map on DR p. 15). Existing roads will only be used, including renovated roads, where they are stable and on stable ground.

The BLM also employs a variety of erosion and sediment control measures (e.g. rock, mulch, debris, seeding, sediment traps, and waterbars) to ensure that the project meets ODEQ standards and the Clean Water Act.

The EA analyzed the potential for winter hauling on the private road in section 12 to support helicopter yarding in EA alternatives 2 and 3. No winter hauling will take place in the Gordon Creek Thinning III timber sale. Contract restrictions on ground based logging operations and on use of the BLM's natural surface road that feeds into this private road prohibit wet season use and haul. (EA p. 31, DR section 2.7)

- *Concerns about adding to current road densities in the watershed.*

Response: EA p. 95 states that open road densities are low, especially in the upper portion of the watershed, due to numerous locked gates and USFS closures that prohibit motor vehicle use (Gordon Creek Watershed Analysis pp. 1-8; 3-10; 11-1, 2). All road access in the Gordon Creek project area is closed by locked gates except for the paved Larch Mountain road that approaches within about 100 feet of BLM land north of section 1.

- *Concerns about adding a temporary stream crossing north of section 1 where one currently does not exist and its impact on stream passage within a mile of the Corbett Water District's intake facility.*

Response: The Selected Action will install a temporary culvert and clean rock fill to cross North Fork Gordon Creek at the old bridge location on private land north of the northeast quarter of section 1. This work is not expected to adversely affect the Corbett water intake for the following reasons. Project design features, such as limiting in-stream work to the dry season (July 16-August 30), will limit the detectable effects to no more than 0.5 mile downstream (EA pp. 23-27). The Corbett water intake is more than 0.5 mile downstream from this stream crossing (EA pp. 72, 73). The BLM will be in contact with the Corbett Water District during harvest operations to further reduce the risks to the water intake (EA p. 41).

See response 9.1, Water Quality.

9.4 ESA Listed Species-Fish (EA Issue 1)

Comments include:

- *Concerns that the project could have adverse effects to Endangered Species Act (ESA) Listed fish species particularly coho salmon and steelhead;*
- *Concerns whether 60 ft. Stream Protection Zone (SPZ) buffers along Gordon Creek, and 25 ft. wide SPZ buffers on intermittent tributaries, coupled with construction of several miles of new roads and reconstructed roads in Sections 1 provides adequate protection for ESA-listed fish.*

Response: Concerns regarding listed fish species were identified as Issue 1 in the EA. The EA analyzed the potential effects to all fish species in the streams affected by the Gordon Creek III project. The Proposed Action has been determined to be "no effect" to listed fish for the following reasons. No actions are proposed within the channels, or that will directly affect the channels of any stream reaches which may be inhabited by listed fish. All thinning units are located ≥ 2.25 miles upstream of listed fish habitat.

The Selected Action will implement the following design features that that will prevent any decrease in stream shade on perennial streams so that there will be no increase in stream temperature from increased sun exposure. The Selected Action will establish stream protection zones (where no cutting or logging will take place) that are a minimum of 60 feet wide on each side of perennial streams to protect the primary shade zone, and range from 100 feet wide on North Fork Gordon Creek downstream of the water intake, to 200-1000 feet wide above the water intake. The Selected Action will also maintain 50-60% canopy closure in the remainder of the Riparian Reserve LUA (220-440 feet each side of streams) which includes the secondary shade zone of these streams (EA, pp. 70, 86).

No cutting or logging operations will take place within stream protection zones. Undisturbed soil and vegetation in the stream protection zones (SPZ) will filter potential sediment associated with skidding or yarding before it reaches any streams. Potential sediment inputs associated with road construction/decommissioning, and timber haul will not reach ESA listed fish habitat. Stream crossings associated with haul routes are about two miles upstream of listed fish habitat. Hauling will be monitored and suspended whenever conditions will potentially introduce sediment into streams. Any sediment moving off the road is unlikely to be detectable (as elevated turbidity) more than 0.5 miles downstream of the road crossing.

Large woody debris (LWD) supplies will improve long term on project area streams as the result of accelerated tree growth in Riparian Reserves. However, LWD from thinned areas is unlikely to move to listed fish habitat because of the small size of project area streams where stream protection zones are narrow (30 ft.) and because trees that fall from thinned areas on perennial streams will have >60 feet of the largest portion of the bole anchoring the tree in the forest thereby restricting its movement downstream to listed fish habitat (≥ 2.25 miles downstream).

ESA Listed Species-Fish is also addressed in the EA, pp. 21-27, 31, 37, 42-46, 68-92; DR sections 6.3 and response to 9.1.

9.5 Cumulative Effects Analysis (EA Issue 2)

Comments include:

- *Concern about the adequacy of the cumulative effects analysis;*
- *The use of roads by private landowners concurrent with activities on BLM land during all seasons of activity;*
- *The effect of the project on migratory birds from changing habitats,;*
- *The effect of new construction overall road densities.*

Response: The EA addressed the potential for cumulative impacts (EA pp. ix-x, 9-10, 39-41, 60-61, 78-80, 91-92, 100, 117-118, 127, 133-134, 141). In regards to activities on private land utilizing the area's road system concurrently with activities on BLM, I do not anticipate any adverse cumulative impacts for the following reasons.

To ensure ongoing compliance with Oregon Department of Environmental Quality (ODEQ) water quality standards, the BLM timber sale administrator and the BLM harvest inspectors will visually monitor turbidity (a visible reduction in water clarity caused by road-generated sediment entering the stream at stream crossings on the haul route, regardless of the source of sedimentation (including private roads). If water clarity is visibly altered beyond the mixing zone, the BLM will suspend hauling and other operations immediately and require the operator to immediately reduce fine sediment runoff into the stream by implementing erosion control measures described in the EA (EA pp. 24-25, DR section 2.7). The BLM will allow operations to resume when weather and road conditions combined with measures taken to reduce sediment are deemed sufficient to comply with State of Oregon turbidity standards (EA pp. 23-25, 70-73). See responses to 9.1 and 9.3.

- *The scale utilized to assess impacts to spotted owls, retention of late successional forest at the watershed scale.*

Response: Within the Cascades of Western Oregon, the scale for cumulative effects for the northern spotted owl is the provincial home range of known spotted owl sites (1.2 miles) (BA², p. 3; LOC³, p. 11-12), and the location of the project in relationship to adjacent known spotted owl sites and Late Successional Reserves (LSRs).

² BA is the *Biological Assessment of NLAA Projects with the Potential to Modify the Habitat of Northern Spotted Owls Willamette Planning Province - FY 2011/2012*, March 2010.

³ LOC is the *Letter of Concurrence Regarding the Effects of NLAA Habitat Modification Activities within the Willamette Province, FY2011/2012*(reference # 13420-2010-I-0092), June 2010.

The scale was chosen because the Northwest Forest Plan (NWFP) goal for conservation and recovery for the spotted owl is to maintain suitable owl habitat within LSRs and known owl sites, and maintain dispersal habitat between LSRs and known owl sites.

Cumulative effects to spotted owls and their habitat were analyzed thoroughly at multiple scales in the BA, including the current Environmental Baseline (BA pp.11-20), and Cumulative Habitat Effects Summary (BA pp. 38). I reviewed the cumulative effects analysis for the northern spotted owl in the EA and concluded that the scale utilized for the cumulative effects analysis in the EA is the appropriate scale.

Concerning retention of late-successional forest at the watershed scale, the Gordon Creek Thinning III timber sale does not propose to treat any late-successional stands, therefore there will be no direct or cumulative impact on the acres of late-successional forest type in the watershed (EA pp. vi, 10, 37).

This cumulative effects analysis is also addressed in the EA, pp. vi-vii, 9-10, 101-110, 115, 117-118. See also DR section 6.4 - consultation with U.S. Fish and Wildlife.

9.6 Riparian Management and Aquatic Conservation Strategy (EA Issue 3)

Comments include doubts as to whether thinning in the Riparian Reserve LUA will support the attainment of Aquatic Conservation Strategy objectives; and doubts that thinning results in larger diameter trees sooner than would develop in unthinned stands and/or that larger diameter trees provide the resources for larger size snags and down logs when they die.

Response: Doubts about whether thinning in the Riparian LUA will support ACS objectives was addressed as Issue 3 in the EA. The EA shows how the proposed thinning contributes to meeting ACS Objectives (EA pp. 56-59, 142-144, 146,148). Some commenter's disagreed with BLM's assessment but did not present evidence that BLM was in error. EA pp. 56-58 describe how thinning promotes the development of late successional characteristics (larger trees, diverse species, multi-layer canopy) (ACS objectives 1, 2, 8, 9). For example:

- Average stand diameter will increase, since the bulk of the harvested trees will be in the smaller diameter classes (EA p. 56).
- As site resources are concentrated on fewer trees, the growth rates of the retained trees increase and the trees are more vigorous and healthy compared to what they will be in a crowded stand (EA p. 58). With faster growth rates, it is reasonable to assume that more trees will get larger faster.
- The faster growth rates after thinning will also provide trees of suitable size for snags (15+ inches diameter) and coarse woody debris (CWD) (20+ inches diameter) as needed for management plans sooner than will be available without thinning. Thus, accelerated growth will help meet Terrestrial Recommendation 1 of the Gordon Creek Watershed Analysis (p. 11-3) to "... develop and maintain later seral forest stand characteristics. Desirable stand characteristics include larger trees for a large green tree component and recruitment of large standing dead and down coarse woody debris in future stands..." (EA p. 58).
- Retaining minor conifer species and hardwoods and the development of understory vegetation will also help meet Terrestrial Recommendation 1, which continues: "...multi-layered stands with well developed understories, and multiple species that include hardwoods and other minor species."(EA p. 58).

Basic silviculture science and subsequent stand exams over 50 years of commercial thinning show increased growth rates in forest stands as a result of thinning. Thinning results have been further documented by studies such as the BLM Density Management Study (DMS), including seven sites on four BLM Districts, in cooperation with Oregon State University and the Pacific Northwest Research Station. This ongoing study provides the basis for some of the most current science available on the effects of different thinning densities (EA p. 50).

Riparian management and the Aquatic Conservation Strategy is also addressed in the EA, pp. 3-4, 12-16, 27-29, 35, 42-46, 46-62, 86-87, 101-120, 142-146.

9.7 Late – Successional Forest/Dead Trees/ Old Growth / Variable Density Thinning (EA Issues 3 and 4)

Comments include:

- *Suggestions that BLM manage the Gordon Creek Thinning III area to develop old growth characteristics for old growth dependant species including greater numbers of dead trees and some suggest using variable density thinning or no management action.*
- *Disagreement with BLM's management direction and the project's associated purpose and need.*

Response: Changing management direction is out of the scope of this project. BLM's land management is directed by the O&C Act, FLPMA and the Salem District 1995 RMP. The 1995 RMP specifies land use allocations with associated objectives (EA pp. 2-5, 8) The Gordon Creek Thinning III project area falls within the Matrix and Riparian Reserve LUA (1995 RMP).

The project has been designed to protect all legacy features (old growth trees, large snags, large coarse woody debris (CWD)) as long as they do not pose a safety hazard under OSHA regulations. Any old growth trees, large snags and large trees cut for safety will be retained on site as CWD. The EA analyzed the effects of thinning on dead wood. Science has demonstrated that the larger snags receive greater wildlife use (EA p. 104, Table 10). The project identified a shortage of large diameter snags (greater than 20" dbh) in Riparian Reserve LUA. Therefore, based on the purpose and need I have decided it is important to accelerate the development of larger trees in a shorter period of time in the portions of the Riparian Reserve LUA that are designated for treatment.

- *Requests that the BLM apply variable density thinning treatments*

Response: Under the 1995 RMP, the primary function of the Matrix LUA is to produce a sustainable supply of timber and other commodities, and then to provide connectivity to support dispersal between reserves, provide habitat and provide for other ecological functions (1995 RMP p. 20).

Variable density thinning (VDT) of forest stands takes many forms, but its application in dense, managed forest stands using methods proposed in external scoping comments involves thinning densities that deviate from the range of residual densities that the IDT determined will be most suited to achieving timber production goals.

The IDT considered this alternative but did not analyze it in detail because the Proposed Action in the Riparian Reserves LUA implements a form of variable density management designated to provide greater ecological diversity, owl nesting, foraging, and roosting habitat to meet habitat diversity objectives. In the Riparian Reserve LUA, variable density thinning will be applied by retaining approximately 58 percent [160 acres] of the Riparian Reserve within the [Gordon Creek Thinning III] project area, allowing these areas to develop naturally and provide the “clumpy” element of complex stand structure (EA pp. 14-15).

Immediately after thinning, the Gordon Creek project area will have a higher degree of complexity on a landscape level than it currently has due to the 25 percent spacing variation within thinned stands, treatments that vary between stands, the untreated areas adjacent to the thinned stands (EA p. 59).

- *Suggestions that variable density thinning treatments are not appropriate in these stands*

Response: Numerous low density canopy gaps (≤ 1.0 acre each, comprising 5-15 percent of the treated Riparian Reserve) were proposed in the Riparian Reserve LUA in the original Proposed Action (2007 EA) with the objective of introducing more diversity in the stands. As a result of public comment, I have decided not to implement creation of any low-density canopy gaps in the Gordon Creek III timber sale (EA pp. 36, 115, 146).

Late – successional forest, dead trees, old growth, and variable density thinning are also addressed in the EA, pp. vi and vii, 3-4, 6, 14-16, 27-28, 35-37, 53-59, 101-120.

9.8 ESA Listed Species-Northern Spotted Owl (NSO) (EA Issue 4)

Comments include concerns the proposed Gordon Creek Thinning III timber sale will be detrimental to spotted owls.

Response: The project area contains no critical NSO habitat. It currently serves as dispersal habitat and will continue to do so after the project is implemented. Additionally, the area will continue to provide habitat for spotted owl forage species such as red tree voles in GFMA and Riparian Reserve LUAs. The project will provide for a dead wood component by retaining existing large snags and legacy features. No old growth stands or habitat exist within the Gordon Creek Thinning III project area.

Surveys have not substantiated spotted owl occupancy in the area. The project is in full compliance with required protections for the spotted owl in the Gordon Creek Thinning III project area (EA pp. 3, 7, 8; BA pp 6-8; LOC pp. 13-16; DR section 6.4). Cumulative effects to owls are addressed in DR section 9.5. The northern spotted owl is also addressed in the EA, pp. viii, 10, 28-29, 105, 109, 111-112, 116-117, 148.

9.9 Special Status Species (excluding ESA threatened / endangered species) (EA Issue 4)

Comments include concerns that the proposed project would have an adverse effect on Special Status Species in particular bats, Larch Mountain salamander and the Columbia dusksnail.

Response: The EA discussed measures to protect special status species (SSS) and they were specifically addressed as Issue 4 (EA p. 10). These measures include: restricting or suspending operations and modifying project boundaries if plant or animal populations that need protection are found during ongoing surveys or are found incidental to operations or other activity in the area (EA p. 29).

I have reviewed the concerns and project design and have concluded that the project will not have adverse impacts to SSS for the following reasons. No suitable habitat for BLM Special Status species known or likely to be present will be lost (EA p. vii). Thinning will not be expected to contribute to the need to list any Bureau Sensitive species under the Endangered Species Act (BLM 6840) because habitat for the species that is known to occur in the project areas will be not be eliminated, habitat connectivity will not be changed, any habitat alteration will have only short-term negative effects, and long-term effects will be beneficial (EA p. 118).

Larch Mountain salamander is associated with rocky, talus areas on steep slopes and coarse woody debris in older forests. The project will not adversely affect Larch Mountain Salamander because there is no habitat for this species within the Gordon Creek Project Area (EA p. 106). The Columbia dusksnail is present in spring heads adjacent to Units 3A, 11B, (Gordon Creek Thinning II), 13B and 15A (Gordon Creek Thinning I) (EA p. 83). The Gordon Creek Thinning III timber sale will not affect this species because field surveys found no Columbia dusksnail within the Gordon Creek Thinning III project area (T.1S. R5E. section 1).

The Selected Action is not expected to adversely affect bat populations which use snag habitat and older forests for the following reasons. No older forests are proposed for thinning. The project will retain 90% of the existing snags in all sizes over 15 inches diameter. Bat activity appears to be higher in thinned versus unthinned stands. Structural changes in habitat as a result of thinning may benefit bats by creating habitat structure in young stands that bats are able to use more effectively (Humes, Hayes, Collopy 1999) (EA p. 114).

Special status species (excluding ESA threatened / endangered species) are also addressed in the EA, pp. vii, 3, 10, 27-29, 40, 47, 55, 83-86, 88, 101-120, 153-156.

9.10 Windthrow (EA Issue 1)

Comments include:

- *Suggestions that BLM should conduct additional analysis on the extent of windthrow (blowdown) that occurred in the project area during the winter of 2008/2009*
- *Concerns that significant windthrow could occur adjacent to new and existing openings created by road construction and timber harvesting on private land.*

Response: BLM personnel examined the area and assessed the extent of the ice damage during the 2008/2009 winter and found limited windthrow. BLM experience with similar thinning projects has shown that thinning as prescribed in the Proposed Action retains sufficient strength in the stand to resist windthrow of more than scattered individual trees. As trees in the stand become more vigorous, increased root mass) as the roots spread into areas previously occupied by competing trees) and limb-to-limb contact that further dampens swaying, wind-firmness will continue to increase (EA pp. 53-54, 58).

Additionally, research cited in the EA such as Roberts (2007) supports this observation. Roberts, et al (2007) looked at wind damage following the implementation of thinning prescriptions. They found no significant difference in wind damage following thinning, between thinned and unthinned areas. Further, internal edges created by gaps, skid trails, and unthinned patches did not inherently increase wind damage risk. The paper also recommends that care be taken to locate gaps and skid trails away from topographically vulnerable positions. Windthrow is also addressed in the EA, pp. 9, 13-14; 36-37, 48, 53-54, 58, 61, 92, 121-122, 126.

9.11 Economic Viability of the Timber Sale (EA Issue 5)

Comments include:

- *Concerns that too many restrictions on the project operations would have an adverse effect on the economic viability of the timber sale.*
- *Suggestions that the project be delayed due to the current poor timber market conditions.*

Response: Economic viability was identified in the Purpose and Need and as Issue 5 in the EA (EA pp. 10). The EA analyzed costs for three action alternatives, summarized in EA Table 5 (EA pp. 33). Economic considerations are included in the decision factors for the project and timber value at harvest is a consideration in the management direction for the GFMA LUA (1995 RMP pp. 20, 46) (EA pp. 2, 3, 4).

BLM is directed to provide timber on an even flow sustained yield basis, so the BLM is not guided by market conditions. Historically, timber prices are cyclical. Timber sale contracts are typically for a three year period. The length of the contract period provides purchasers flexibility to make business decisions to address cyclical market conditions.

I have reviewed the project design and current market conditions and have concluded that the Gordon Creek Thinning III timber sale is an economically viable project. Thinning in the matrix meets EA decision factors 1 and 2 (DR section 4.0, Table 3).

The economic viability of the timber sale is also addressed in the EA, pp. 10, 16, 18-19, 33.

9.12 Invasive Non-Native Plants (EA Issue 6)

Comments include:

- *Concerns that road building would encourage the spread of invasive/non-native plants*
- *Questions about the BLM's plan to control the introduction and spread of invasive non-native plants.*
- *Suggestions that not logging the area would prevent the establishment of invasive species.*

Response: Not thinning the proposed units does not meet the purpose and need as stated in EA section 1.2 (EA pp. 1-4). Non-native invasive plants are most often found in road prisms as the likely result of vehicle traffic.

The EA includes an expanded discussion of invasive/non-native plants, and project design features to prevent the introduction and spread of non-native invasive species (EA pp. 28, 55-56). BLM also has an ongoing survey, monitoring and treatment program on all BLM land within the Cascades Resource Area. Invasive non-native plants are also addressed in the EA, pp. vi, 10, 28, 52, 55, 62.

9.13 Carbon Storage/Climate Change (EA Issue 8)

Comments include:

- *Opinions that the EA should not rely on the WOPR EIS;*

Response: The BLM used the carbon methodology described in the 2008 FEIS because that is the best analysis and methodology available to BLM at this time.

The EA used data associated with the No Action Alternative in the 2008 FEIS, which by definition is management under the 1995 ROD and the Northwest Forest Plan, including the cumulative effects analysis.

- *An opinion that forests like Gordon Creek should be managed for carbon storage rather than timber, that BLM has not provided a compelling need for logging, and that BLM should not harvest any timber due to adverse carbon emissions.*

Response: BLM has provided the rationale for the project in the purpose of and need for action (EA pp. 2-4, DR section 9.15). Changing Land Use Allocations or changing management guidelines are beyond the scope of this EA.

- *Concerns about the scale of analysis and the local contribution of changes in carbon storage to global climate change.*
- *An objection to the BLM using global scale carbon measurements for the discussion of carbon storage and global climate change.*

Response: BLM has addressed the potential local, regional, U.S. national and global scale incremental impacts of the project that may result in net emissions or net storage of greenhouse gases (EA, pp.138-142).

The EA analyzed carbon storage and emissions for the action alternatives and the No Action Alternative at local, Pacific Northwest, United States and worldwide scales. (EA pp. 138-142) At all scales, emissions from the Gordon Creek project are very small, and will be undetectable at the global atmospheric CO₂ concentration level.

The EA also addresses the cumulative impact of the projects carbon release and sequestration and presents the incremental effect of the Proposed Action on greenhouse gas levels within the context of effects of past, present, and reasonably foreseeable future actions at multiple spatial scales on page 141. As described in the EA, the analysis has determined that the project's carbon net emission is so temporary and small that it was determined to be not significant (EA pp. viii, x).

- *An observation that total carbon storage for the analysis period (2040) would be greater if no logging is done.*

Response: We agree that the No Action Alternative stores more carbon than the action alternatives. EA Table 16, page 140 shows that the No Action Alternative stores more carbon than the action alternatives at year 2040. Table 16 also shows that for the action alternatives, there is a net increase in carbon storage at year 2040 compared to current storage.

The analysis has determined that the project's carbon net emissions, which is directly related to the difference in storage, is so small that it was determined to be not significant because there will be no measurable difference in greenhouse gasses in the atmosphere whether the project is implemented or not.

- *Concerns about limiting the temporal scope of the analysis to 30 years, and that carbon emissions from the project would contribute to adverse climate impacts for a longer period of time.*

Response: As described in the EA, the analysis has determined that the project's carbon net emissions are so small that it was determined to be not significant (EA, pp. viii, x). The EA does not claim that "carbon losses and climate impacts...will be erased..." The BLM identified the greenhouse gas emissions and storage associated with this project, but this project in and of itself or cumulatively could not measurably affect climate change.

- *An opinion that the EA should have analyzed changes caused by timber harvest operations in the decay rate of dead wood in the project area.*

Response: This is an opinion of what should be addressed in an EA. BLM has searched for available scientific literature on this issue and is unaware of any science that will provide a reliable way to quantify differences in decay rates or support the commenter's viewpoint that such a change in decay rate will potentially change the analysis (EA p. 139).

- *Opinions that the BLM should do an EIS on carbon storage because the EA is not based on sound science, and requests that the BLM use the best available science to analyze carbon storage and the project's effects on climate change.*

Response: BLM has considered a wide range of the best available science (EA, pp. 135,136). BLM has considered numerous scientific sources including the sources utilized in the carbon/climate analysis for the 2008 FEIS analysis, sources presented by commenters, and sources available to the BLM (EA p. 203).

Carbon storage and climate change are also addressed in the EA, pp. 68-80, 86-93, 135-137, 144-145, 147.

9.14 Spotted Owl Recovery Plan/Western Oregon Plan Revision (EA Issue 4)

Comments include a suggestion that the Gordon Creek projects be deferred because the Obama administration has withdrawn support for the Spotted Owl Recovery Plan on which the Western Oregon Plan Revision was based.

Response: I find no sufficient reason to defer the sale. The Gordon Creek Thinning EA was planned in accordance with the 1995 RMP and did not depend on the Spotted Owl Recovery Plan described in the comment. Impacts this project will have on the northern spotted are addressed in the EA (EA pp. 13-15, 27-31, 101-119, 135-144, 146). Also, see response to 9.8.

9.15 BLM Land Use Allocations and Range of Alternatives

Comments include:

- *Disagreement with BLM management objectives for Matrix and Riparian Reserve Land Use Allocations.*
- *Opinions that there is an inadequate range of alternatives analyzed in the EA. Commenter's recommended alternatives to the proposed action and action alternatives were often based in the commenters' preferred management objectives. Land use objectives and alternatives proposed by commenters include: protecting areas that remain intact, restoring areas that have been degraded, managing the area for carbon sequestration, focusing on restoration not commodity extraction, deferring logging instead of producing an even flow of timber, and managing for decadence, old growth characteristics, owl habitat, and owl prey species.*

Response:

Land Use Allocations: Changing land use allocations are outside the scope of this project, and are a land use plan (RMP) level decision process.

Range of Alternatives: After reviewing the EA, I have determined that the range of alternatives analyzed is adequate because the purpose and need for the project defines the project and limits the range of action alternatives to those which fulfill the purpose and need for action (EA pp.2-4). The EA analyzed three action alternatives and the No Action Alternative.

The EA also considered additional alternatives which were not analyzed in detail (EA pp. 34-35); including regeneration harvest; reducing road construction/renovation by skyline yarding across perennial streams; variable density thinning in matrix; prohibiting winter haul on private roads in section 12; and reserving the stands in the project area for carbon storage. In response to public comments, the EA also analyzed changes to the original Proposed Action (EA pp. 36-39). Changes that apply to the Gordon Creek Thinning III project include dropping low density canopy gaps from Proposed Action, and expanding the stream protection zone in section 1.

9.16 Access to Stands during Comment Period

Comments include concerns about being unable to access the area during the second EA comment period that took place in spring when roads were blocked by snow and down trees.

Response: The public had an opportunity to access the project area during the original EA comment period, September – November 2007, when the area was free from snow. Although access to the area is extremely limited due to a series of gates that are controlled by private landowners, the public has been granted entry permission from private landowners when requested. Although it did not take place during a comment period, on June 4, 2007 the BLM hosted one field trip to view areas that were identified as high concern areas by the public. Therefore, I have concluded that the public has had sufficient opportunity to view the project proposal.