

**ENVIRONMENTAL ASSESSMENT**

**The Rocky Point Bald Eagle  
Habitat Enhancement Project**

April 2011



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**BLM/OR/WA/AE-10/032+1792**

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering economic use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

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# The Rocky Point Bald Eagle Habitat Enhancement Project

## Environmental Assessment

April 2011

United States Department of the Interior  
Bureau of Land Management, Oregon State Office  
Salem District, Tillamook Resource Area  
Multnomah County, Oregon

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Abstract: The Bureau of Land Management proposes to conduct a project in the Scappoose Creek subwatershed on federal lands in the Connectivity and Riparian Reserve land use allocations. The project is a wildlife habitat enhancement treatment on approximately 92 acres. These actions will occur on federal land in T.3N, R.2W, Section 35, Willamette Meridian.

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# 1 Introduction

## *Project Scope*

The Rocky Point Bald Eagle Habitat Enhancement Project Environmental Assessment (EA) encompasses a site-specific habitat enhancement effort proposed by the Tillamook Resource Area. The proposed project would improve roosting and nesting habitat for bald eagles (*Haliaeetus leucocephalus*) by topping dominant overstory conifers within the live crown, or releasing dominant overstory conifers from competing adjacent trees.

The key elements of the project presented in this EA are the result of an Interdisciplinary (ID) Team review and professional experience in the watershed provided by Tillamook Resource Area specialists.

The proposed project area is within the Matrix/Connectivity and Riparian Reserve (RR) Land Use Allocation (LUA). Proposed actions on BLM land will include treatment of up to 92 acres (41 acres in Matrix/Connectivity, 51 acres in RR). The project will contribute to moving this area toward conditions desired in the future based on the management criteria derived from the *Salem District Record of Decision and Resource Management Plan*, May 1995 (ROD/RMP), and the *Scappoose Creek Watershed Analysis*, December 1996. This project is expected to begin in September 2011, and be completed by December 2011.

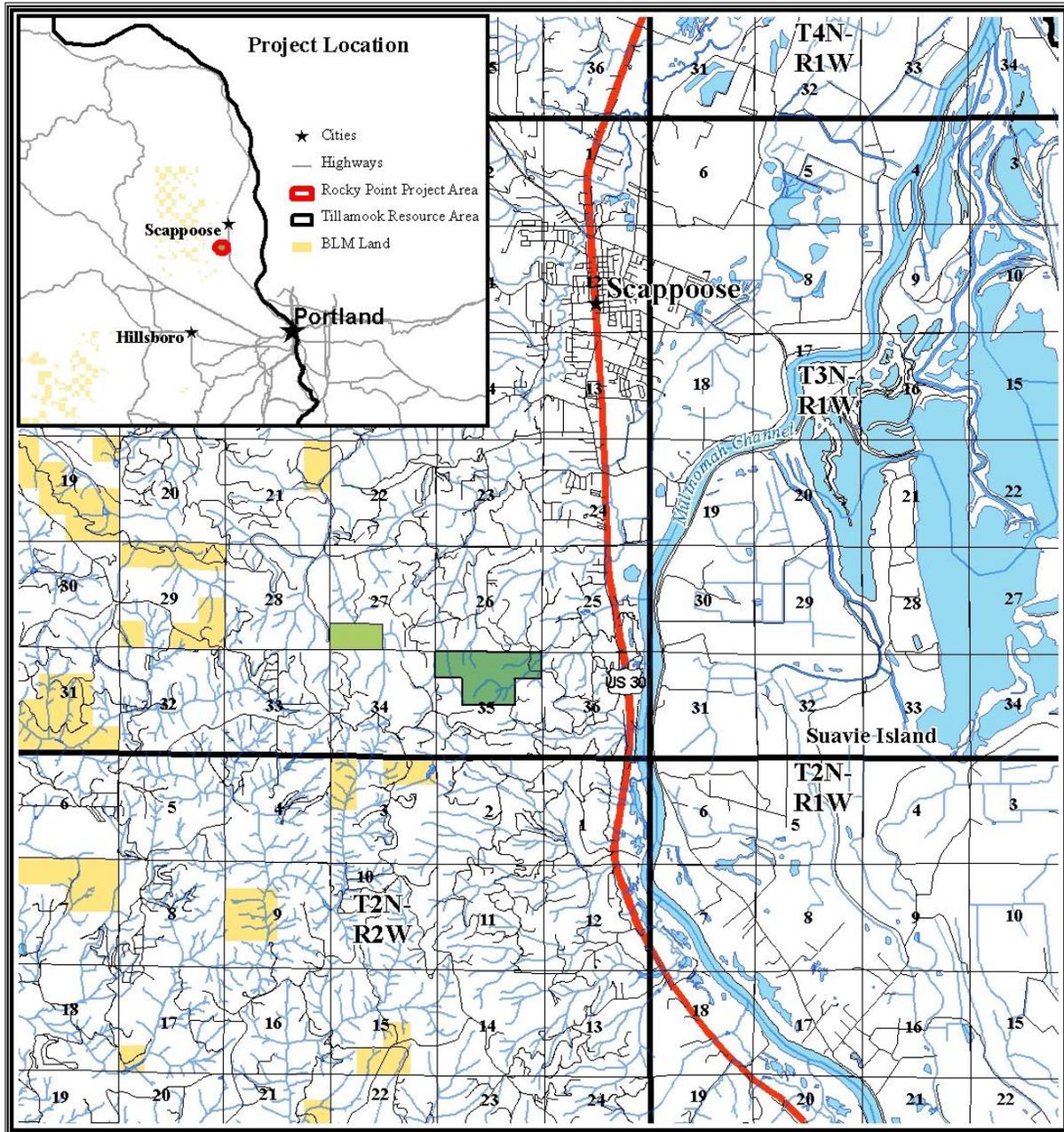
## 1.1 Project

The Rocky Point Bald Eagle Habitat Enhancement Project (herein called the Rocky Point Project) is located within the Scappoose Creek 5<sup>th</sup> field watershed and is approximately 3 miles south of the town of Scappoose, Oregon. The project area is located in T.3N, R.2W, Section 35, Willamette Meridian, Multnomah County, on Oregon and California Railroad Lands (O&C Lands) (Figure 1).

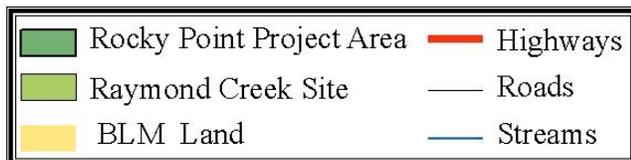
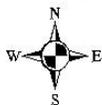
The project area is set in a context of Federal lands distributed in a scattered, non-contiguous or “checkerboard” fashion with parcels of Federal lands commonly being less than a full section (640 acres) in size. They are surrounded by, and intermingled with, non-Federal forestland owned by private landowners and industrial timber companies that manage primarily for timber production on short rotations. Management practices on industrial timberlands tend to dominate the character of the forested landscape containing the proposed project.

The project area is within one mile of the Columbia River and Sauvie Island, and nearly 12,000 acres of the island have been preserved as the Sauvie Island Wildlife Area by Oregon Department of Fish & Wildlife (ODF&W). Both resident and overwintering bald eagles use this area, foraging primarily on fish and waterfowl. Breeding eagle pairs have historically nested on Sauvie Island and there are four active nests at present (ODF&W 2009). The project area is also located within one mile of the Raymond Creek bald eagle site (# OR\_0156) in T.3N, R.2W, Section 27. This 80-acre BLM parcel contains an active nest and is an important communal winter roost site. Over 40 eagles have been observed flying out of this site in a single morning. The Rocky Point Project area has been identified as a potential alternative communal roost site to the Raymond Creek site in case of severe disturbance by wind or wildfire events (Scappoose Creek Watershed Analysis – pg. 26).

Figure 1. Rocky Point Project Location Map



0 1 2 Miles



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## 1.2 Conformance with Land Use Plans, Policies and Programs

The proposed project will conform to the *Salem District Record of Decision and Resource Management Plan*, May 1995 (ROD/RMP) which tiers to the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (FEIS).

The proposed project will also conform to the following laws, policies and NEPA decisions:

- The Federal Land Policy and Management Act (FLPMA): Section 302 at 43 U.S.C. 1732(a), directs that “The Secretary shall manage the public lands . . . in accordance with the land use plans developed by him under section 202 of this Act when they are available . . .”
- 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 (Northwest Forest Plan (NFP)).
- 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 (ROD\_S&G).

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;
- B. Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
- C. Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement large wood, channel and floodplain reconstruction, or removal of channel diversions; and
- D. The portions of project 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, the Rocky Point Project has been reviewed in consideration of both the December 17, 2009 and October 11, 2006 orders. The ID team determined that the Rocky Point Project is not a ground-disturbing activity, and would have no effect on any potentially present Survey and Manage species with the exception of two lichen species, *Hypogymnia duplicata* and *Platismatia lacunosa*. *H. duplicata* is uncommonly found on the boles of older conifers while *P. lacunosa* is uncommonly found on red alder in moist riparian forests. Botanical surveys for these two species were completed in May 2010 with no detections. Therefore, the Rocky Point Project is in compliance with the Survey and Manage mitigation measure and it may be implemented even if the District Court sets aside or otherwise enjoins use of the 2007 Survey and Manage Record of Decision.

Additionally, the proposed project would be consistent with the following planning analyses, assessments, and guidance:

- Scappoose Creek Watershed Analysis, December 1996
- Pacific Bald Eagle Recovery Plan, August 1986
- BLM Manual 6840 – Special Status Species Management, December 2008
- Instruction Memorandum No. OR-2010-009

On July 16, 2009, the U.S. Department of the Interior withdrew the Records of Decision (2008 ROD) for the Western Oregon Plan Revision. The information contained in the 2008 Final Environmental Impact Statement (2008 FEIS) for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management is accurate and relevant since it examined the most recent and applicable analysis for designation of new Areas of Critical Environmental Concern. The discussions on Volume I, Page 27; Volume II, Pages 710-712; and Volume IV, Page 498, are relevant to the effects analysis for this project and are incorporated by reference. Following is a summary of the conclusions from the FEIS and the basis for these conclusions:

Areas of Critical Environmental Concern (ACEC) are established to protect important and relevant values that require special management attention. The proposed Lower Scappoose Eagle ACEC, which includes the Rocky Point Project area and the Raymond Creek site, was analyzed for designation because the area includes both an active bald eagle nest and a communal winter roost and was found to meet the Relevance and Importance criteria. It is unique in the sense that it provides refugia from surrounding private industrial forestlands and expanding urban areas and is contributing to the resurgence of bald eagles along the lower Columbia River bald eagle recovery zone. Therefore, although the project area is in the current Connectivity LUA, it must also be managed to preserve the relevant and important features for which the ACEC was proposed.

The proposed project would conform to the following laws:

- The Endangered Species Act of 1972, as amended in 1978, 1982, and 1988
- Clean Water Act of 1972, as amended in 1977 and 1987
- Clean Air Act of 1970, as amended in 1977 and 1990
- The O&C Act of 1937
- Migratory Bird Treaty Reform Act of 2004 (MBTA)
- Title II (Special Projects on Federal Land) funded projects appropriated through the Secure Rural Schools and Community Self-Determination Act of 2000

### **1.3 *Decisions to be made***

This EA will consider the environmental consequences of the proposed action and no-action alternatives in order to provide sufficient evidence for determining whether the anticipated impacts will exceed those considered in the FEIS and require the preparation of a Supplemental Environmental Impact Statement (SEIS). The Rocky Point Bald Eagle Habitat Enhancement Environmental Assessment is a site-specific habitat enhancement effort proposed by the Tillamook Resource Area.

The Tillamook Field Manager is the official responsible for deciding whether or not to prepare an Environmental Impact Statement (EIS), and whether to approve the Rocky Point Bald Eagle Habitat Enhancement Project as proposed, not at all, or to some other extent.

## **2 *The Rocky Point Bald Eagle Habitat Enhancement Project***

### **2.1 *Purpose of and Need for Action***

The project area identified in this EA was initially described and recommended for improvement in the Scappoose Creek Watershed Analysis prepared by the BLM Tillamook Resource Area in December 1996. The Scappoose Creek watershed is approximately 37,869 acres, of which the BLM manages 15% or 5,680 acres. Approximately 47% of the watershed is owned by industrial timber companies and 38% of the land is owned by private individuals and smaller companies, many of them managing their land for timber production. Private industrial forests generally exhibit very simple canopy structure and are usually harvested prior to developing a diverse stand structure typical of late-successional forests. Therefore, private forests usually do not provide quality late-seral stage wildlife habitat features. Federal forested stands in this watershed that are over seventy years old represent the best current opportunity to create habitat for wildlife species. These stands, as well as those in the surrounding landscape, are deficient in late-seral habitat features such as green trees with large crowns, broken or dead tops, and coarse woody debris in the form of snags and down wood. The lack of these features can limit biodiversity and negatively affect populations of wildlife species that benefit directly or indirectly from these types of habitats.

By comparing the existing conditions of the landscape in the project area to the management direction contained in the ROD/RMP, the ID Team identified a number of specific resource conditions that do not meet the long-term management objectives. The proposed action will modify these conditions, and move the stands in the direction described in the ROD/RMP (e.g., Enhance and maintain biological diversity and ecosystem health in order to contribute to healthy wildlife populations (p. 24)).

#### **Objectives**

The objective of this Project is to implement the following management direction from the ROD/RMP:

- Comply with existing site-specific habitat management plans and the Pacific Bald Eagle Recovery Plan (specifically, section 1.32 “Maintain and improve forested habitat in both the breeding and wintering range; Maintain and develop nesting and roosting habitat for future use by eagles”) (ROD/RMP, p. 32).
- Design activities to improve conditions for wildlife if they provide late-successional habitat benefits or if their effect on late-successional associated species is negligible (ROD/RMP, p. 25).

## **2.2 Alternatives**

### **2.2.1 Alternative development**

On December 15, 2009, a Scoping Letter was sent to 11 individuals, organizations and agencies (Project Record Document 7). Because of this scoping effort, BLM received one letter from an adjacent landowner expressing support for the project, and one letter from the Scappoose Bay Watershed Council providing comments and expressing concerns for the project (Project Record Documents 5 and 7). Concerns focused primarily on impacts associated with thinning.

Pursuant to Section 102(2) (E) of the National Environmental Policy Act of 1969, as amended (NEPA), Federal agencies shall "...study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." No unresolved conflicts concerning alternative uses of available resources (section 102(2) (E) of NEPA were identified.

### **2.2.2 Alternative 1: No Action**

The BLM would not implement the Rocky Point Project within the proposed area at this time. Bald eagles would continue to be dependent on ecological processes that create structures suitable for nesting and roosting.

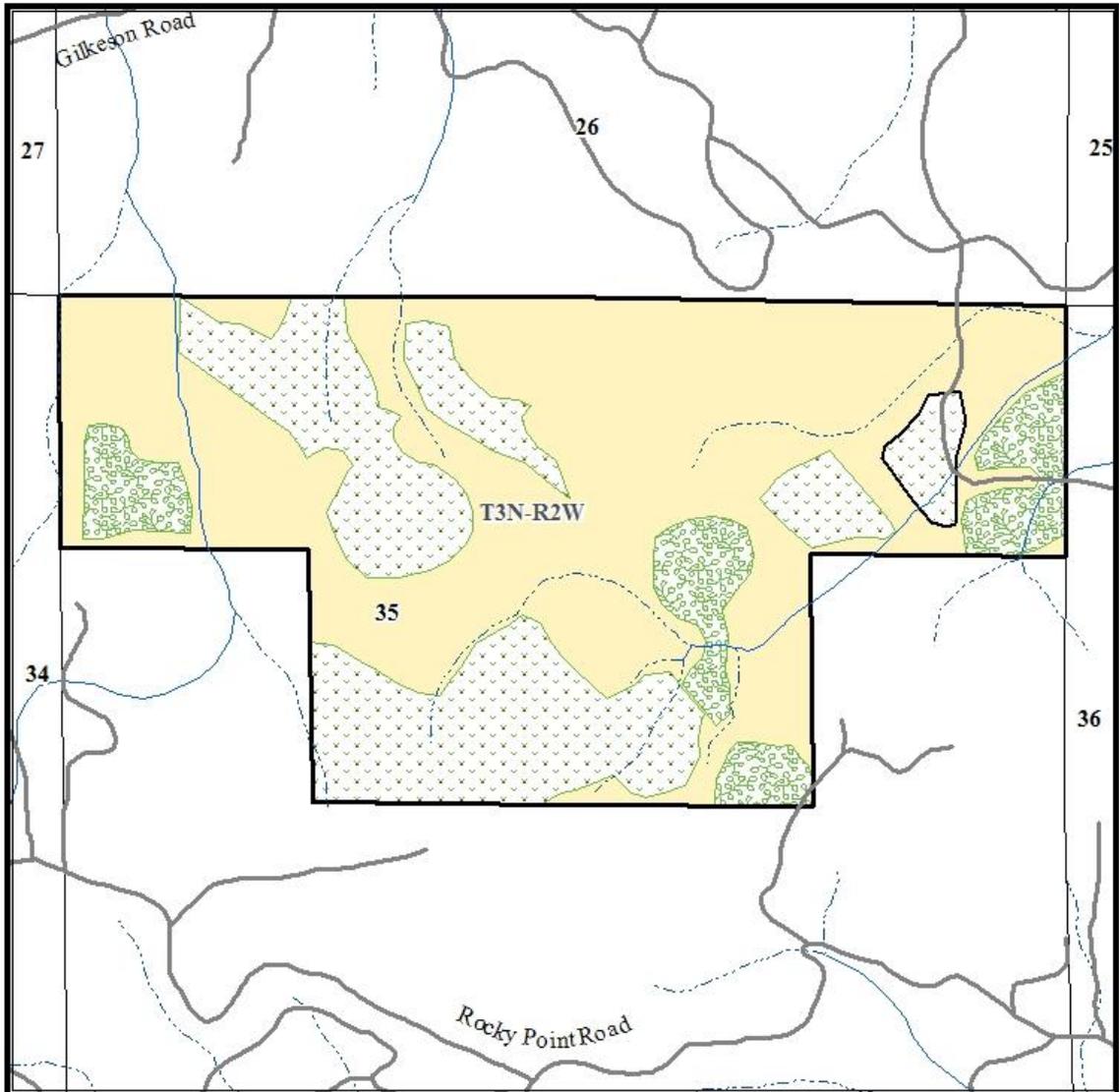
### **2.2.3 Alternative 2: Proposed Action**

In order to help meet the purpose and need as described above, the BLM proposes habitat enhancement that would benefit a variety of wildlife species, but primarily bald eagles, on approximately 92 acres of upland and riparian forest (Figure 2).

The proposal would treat approximately 365 conifers and hardwoods scattered throughout the project area with two specific types of treatments. Treatments would include topping dominant conifers within the live crown, and releasing dominant conifers by either removing the bark and cambium at the base of adjacent trees (basal girdling) or felling adjacent trees. Specifically, the treatments are:

- Topping within the live crown - BLM personnel would select approximately 25 dominant overstory conifers from four areas totaling approximately 24 acres that have a birth date of 1890. Selected trees would have the top of the tree completely severed with a chainsaw at a point approximately 30 feet from the top of the tree. The purpose of this treatment would be to create a deformation at this point and have alternate branches take over as the leader, thus creating additional horizontal structure within the tree. Horizontal structure of this type could produce platforms capable of supporting potential eagle nests and large limbs that could act as roost sites.
- Individual tree release – Contractors would select approximately 85 dominant overstory conifers with a birth date of 1930 and release them from competition through a combination of snag creation (basal-girdling or topping below the live crown) and felling of four trees around each selected release tree (340 treated trees in total over approximately 68 acres). The purpose of this treatment would be to accelerate growth rates and crown development of the selected dominant trees and hasten the establishment of bald eagle nesting and roosting sites within the project area over time.

**Figure 2. Rocky Point Treatment Areas**



0 1,000 Feet



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BLM Land	<b>Treatment</b>
Roads	Topping Within Live Crown
<b>Streams</b>	Release (topping/felling)
Perennial	Release (girdling/felling)
Intermittent/seasonal	

## *Connected Actions*

There are no connected actions for this project.

## *Project Design Features*

- Only healthy, dominant Douglas-fir would be selected for release or topping within the live crown. Trees that already exhibit some degree of decadence would not be treated.
- Trees selected for treatment (release or topping within the live crown) would comprise the largest, dominant trees within a given area and have a minimum diameter of 26 inches DBH.
- When releasing a dominant conifer, only Douglas-fir and hardwood trees between 12 and 24 inches DBH would be felled, topped, or basal-girdled.
- Of the treated trees around a release tree, no more than two would be hardwoods. That is, if more than two of the nearest trees that meet the diameter requirements are hardwoods, then only the nearest two would be treated while the remaining two would be from the nearest two Douglas-firs that meet the diameter requirements.
- When determining which trees to fell and which to girdle, hardwoods would be felled first and then Douglas-fir would be girdled (or topped in the case of the eastern-most unit). If no hardwoods were present, the two Douglas-firs would be felled nearest to the selected release tree and the remaining two Douglas-firs would be girdled (or topped). No hardwoods would be girdled. Hardwood trees that split into two or more stems below DBH would be considered multiple trees for treatment purposes.
- Basal-girdled trees may have an increased risk of snapping at the point of basal-girdling. Therefore, trees near the graveled road in the northeast corner of the project area labeled as “Release (topping/felling)” (see Figure 2) would be topped below the live crown rather than basal-girdled.
- To the extent possible, felled trees would be selected in such a way as to minimize impacts to existing decay class 3, 4, and 5 down logs.
- All felled trees would be left on site to provide additional Coarse Woody Debris.
- Any tree that contains a suspected nest of any bird or mammal would not be selected for treatment. Trees would be felled in such a way as to avoid damage to any adjacent tree containing a suspected nest of a bird or mammal.
- If a red tree vole nest that was not seen from the ground is encountered while climbing to accomplish a treatment, contractors would leave the tree without carrying out treatment, mark and record the tree location, and notify appropriate personnel. No treatments would be conducted within 120’ of the newly discovered red tree vole nest tree (118 feet is the radius of a one-acre circle). Beyond 120 feet from the nest tree, all treatments would be allowed. Individual tree habitat improvement activities would resume outside the red tree vole buffer.
- Created snags or felled trees would not be located within or near areas infected with

laminated root rot (*Phellinus weirii*).

## **2.3 Affected Environment and Environmental Effects**

### **2.3.1 Forest Vegetation**

#### **2.3.1.1 Affected Environment (Forest Vegetation)**

The stands proposed for the Rocky Point Project are generally dominated by Douglas-fir, but some areas contain varying amounts of other conifers (western redcedar, grand fir, and western hemlock) as well as hardwoods (primarily bigleaf maple and red alder). Stands range in age from about 80 to 120 years old. Much of the area is multi-storied (conifer/hardwood overstory with redcedar/western hemlock understory) but there is little decadence in the form of snags and down wood, or deformities in the upper portions of overstory conifers.

#### **15% Standard and Guide**

An analysis was conducted in 1999 of late-successional forest stands on federal lands within the Scappoose Creek fifth-field watershed. In that analysis, late-successional forest was defined as those stands that are 80-years old or greater. The analysis showed that 6,062 acres of federal land are forested and of these lands, 328 acres (5%) meet the definition of LSF. This is below the level identified in the 15 % Retention Standard and Guideline (ROD/RMP - pg. 48, as updated 11/15/99). Additional stands, primarily in the 70-year age class and within modeled riparian reserves, were identified as “next best” stands. Within the project area, treatments would occur in some of these 70-year old stands. The proposed activity (dominant tree release) would enhance late-successional characteristics within these stands by accelerating the growth of dominant trees, felling trees, and creating snags.

#### **2.3.1.2 Environmental Effects Alternative 1: No Action (Forest Vegetation)**

Left untreated, most of the stands would continue on their current developmental trajectories. The rate of attainment of some key features characteristic of older forests would be delayed. Total coarse wood volume would consist primarily of snags and down wood in advanced stages of decay. Deformities in the upper portions of overstory conifers might not evolve for decades. In addition, the crown development of some dominant trees could be restricted by encroachment from adjacent trees, thereby limiting growth rates.

#### **2.3.1.3 Environmental Effects Alternative 2: Proposed Action (Forest Vegetation)**

Implementation of the proposed action would increase the structural complexity of the treated stands by increasing both horizontal structure of dominant conifers (approximately one tree per acre over 24 acres), and crown development of the large individual conifer trees that are released (approximately 1.2 trees per acre over 68 acres). Conifer snags and decay-class 1 down wood (hard logs with intact bark) would be created in a dispersed pattern, creating small canopy gaps that contain concentrations of snags and down wood around strategically located large individual conifer trees.

The proposed project would not compromise those late-successional habitat features that currently exist. The project would protect current habitat features and promote the continued development of bald eagle nesting and roosting habitat. The implementation of this project

may also benefit a variety of wildlife species by creating more complex structures that are characteristic of late-successional forests.

## ***2.3.2 Threatened or Endangered (T&E) Wildlife Species and Habitat***

### ***2.3.2.1 Affected Environment***

The Rocky Point Project treatment areas range in age from approximately 80 to 120 years-old. Douglas-fir dominates the majority of the stands proposed for treatment, but western hemlock, western redcedar, and grand fir are present as well. Bigleaf maple and red alder dominate several areas.

As in most areas, ownership patterns of the northern Coast Range of Oregon strongly influence the character of the landscape. The majority of forested land in the project area vicinity is privately owned and managed with short rotations for timber production.

Current coarse woody debris (CWD) levels within the proposed treatment areas vary but in general, they are all deficient, especially in hard snags and logs. These stands also lack late-seral habitat features such as green trees with broken or dead tops. The low occurrence and limited distribution of these features are likely limiting biodiversity and therefore, may negatively affect populations of wildlife species within the area that benefit directly or indirectly from these types of habitat features.

## **Northern Spotted Owl – Federal Threatened (FT)**

### ***Designated Critical Habitat***

The U.S. Fish and Wildlife Service (USFWS) designates Critical Habitat to provide for the conservation and eventual recovery of the species. None of the Rocky Point Project area is within Designated Critical Habitat for the spotted owl (USDI 1992).

### ***Proximity to Known Spotted Owl Sites***

There are no historic or known occupied spotted owl sites, 100-acre core areas as identified in the NWFP and ROD/RMP or spotted owl Reserve Pair Areas within the proposed project area. The nearest known spotted owl sites are considered historic sites and are located approximately 10 miles west and northwest of the project area. The last known occupancy at both of these sites was in 1978.

### ***Spotted Owl Surveys***

No recent spotted owl surveys have been conducted within or near the Rocky Point Project area. Given the nature of the proposed project, pre-project spotted owl surveys are not required and none are scheduled to be conducted.

### ***Spotted Owl Habitat***

The Rocky Point Project proposes to treat a total of approximately 92 acres within 231 acres of conifer-dominated and conifer/hardwood forest. Approximately 57

acres are comprised primarily of 120-year old conifer-dominated stands and considered suitable habitat for the spotted owl. An additional 174 acres are comprised primarily of 80-year old conifer/hardwood stands and considered dispersal habitat for the spotted owl.

At the landscape or watershed scale, the majority of forest land in this area is privately owned and managed for timber production in such a way as to preclude the development of larger blocks of late-successional habitat for the spotted owl. Federal land within the area is distributed in a checkerboard fashion and relatively isolated from larger blocks of public ownership. These factors do not facilitate the effective management of species such as the spotted owl that require large blocks of late-successional habitat.

### **Marbled Murrelet – (FT)**

#### *Designated Critical Habitat*

The USFWS designates Critical Habitat to provide for the conservation and eventual recovery of the marbled murrelet. The proposed project would not occur within or near designated Critical Habitat for the marbled murrelet (USDI 1996).

#### *Proximity to Known Murrelet Sites*

There are no known occupied murrelet sites within 20 miles of the proposed Rocky Point Project.

In Oregon, potential marbled murrelet nesting potential is split into two zones: Zone 1 is located in a band of land extending up to 35 miles inland from the Pacific Ocean and Zone 2 is located 35 to 50 miles inland from the Pacific Ocean (NFP C-10). The project area is 50 miles or greater from the ocean and is not located within either marbled murrelet zone. There is no suitable marbled murrelet habitat within 0.25 miles of the project area. Therefore, the marbled murrelet will receive no further discussion or analysis in this EA.

### **2.3.2.2 Environmental Effects Alternative 1: No Action (T&E Wildlife)**

Under this alternative, the BLM would not implement the Rocky Point Project. The plant and animal communities would continue to be dependent upon ecological processes such as the natural CWD recruitment regime that is currently in place. Under the “No Action” Alternative, the identified impacts of the action alternative upon wildlife and/or wildlife habitat would not occur within the identified treatment units at this time.

Approximately 92 acres of mature forest would not receive treatment to augment current CWD levels in the form of green trees converted into snags or snag-topped green trees. The forest stands would continue to grow and develop without management intervention. The development of those features of late-successional habitat promoted by implementation of the Rocky Point Project (e.g. green trees with defects/platforms, large crowns, and snags) would be expected to occur over a longer time period than under Alternative 2. There are no identified cumulative impacts to wildlife or wildlife habitat associated with the No Action Alternative.

### **2.3.2.3 *Environmental Effects Alternative 2: Proposed Action (T&E Wildlife)***

Topping trees within the live crown, girdling trees at the base and felling smaller trees to release dominant conifers, will help promote the development of late-successional habitat features such as snags or live trees with broken tops or other defect that will be beneficial to bald eagles. Creation of these features could also serve as vital denning, hiding, roosting, nesting, drumming, and/or foraging sites for a large range of species.

Felling and basal-girdling or topping trees around selected dominant trees will promote the development of larger conifers by accelerating crown expansion. This treatment will also provide, in a dispersed manner, additional light and growing space to individual and small groups of understory shrubs and trees. Increased stand differentiation and understory development will result in an increased level of diversity, both within the immediate area of the treated trees and across the project area as a whole.

#### **Northern Spotted Owl - (FT)**

##### *Designated Critical Habitat*

The proposed Rocky Point Project would not occur within or near spotted owl Designated Critical Habitat. Therefore, the proposed project would have no effect upon spotted owl Designated Critical Habitat.

##### *Impacts to Known Owl Sites*

There are no historic or known occupied spotted owl sites within 10 miles of the project area. No impacts to any currently known spotted owl sites would be expected to result from implementation of the Rocky Point Project.

##### *Impacts to Spotted Owl Habitat*

Based upon the nature of the proposed treatments, no adverse impacts to spotted owl suitable habitat are expected. No suitable habitat would be degraded or removed from its current condition. No tree that is currently suitable as a spotted owl nest tree or any tree adjacent to a potentially suitable nest tree would be impacted.

Increasing spotted owl habitat in areas identified as deficient in elements such as CWD and green trees with broken or dead tops should be beneficial to spotted owls. Trees girdled within the live crown could develop into suitable spotted owl nest trees over time. Created snags or saw-topped green trees could enhance the quality of owl habitat by providing potential denning and foraging sites for various prey species. Several studies have found a strong positive correlation between the amounts of CWD within a stand and the abundance of numerous small-mammal species, including northern flying squirrels, the spotted owl's primary prey species in much of the Pacific Northwest (Carey and Johnson 1995).

### **2.3.2.4 *Cumulative Effects***

Because there are no direct or indirect adverse impacts to spotted owl habitat, there are no adverse cumulative impacts to spotted owl habitat. BLM has no other plans in the project area for the foreseeable future.

### **2.3.2.5 Special Status, SEIS Special Attention, and Migratory Bird Treaty Act Wildlife Species and Habitat**

The analysis below includes species that could occur within the Tillamook Resource Area and have the potential to be impacted by the Rocky Point Project. Species are on either the BLM State Director's Special Status Species List from February 2008 (Bureau Sensitive – BS), the 2001 ROD pertaining to Survey and Manage Species (S&M), or the USFWS's 2008 "Birds of Conservation Concern" list for the U.S. portions of the Northern Pacific Forest Bird Conservation Region (MBTA). All of these lists are the most recent available. See Appendix 6 for the complete species list and a brief impact synopsis that shows which species would be impacted and carried forward to the analysis below.

### **2.3.2.6 Affected Environment**

#### **Mollusks**

The proposed Rocky Point Project contains areas that are potential habitat for nine species of mollusks. They include the crowned tightcoil (*Pristiloma pilsbryi* - BS); Puget Oregonian (*Cryptomastix devia* - BS); salamander slug (*Gliabates oregonius* - BS); spotted tailedropper (*Prophysaon vanattaie pardalis* - BS); Tillamook westernslug (*Hesperarion mariae* - BS); Oregon megomphix (*Megomphix hemphilli* - BS); and warty jumping-slug (*Hemphillis glandulosa* – BS/S&M). Although there are likely species-specific variations in microhabitat requirements, in general all of these species are associated with the organic duff layer on the forest floor. Additionally, habitat types containing a hardwood component, especially bigleaf maple, benefit a number of these mollusk species.

#### **Bald Eagle (BS)**

The final rule delisting the bald eagle from the Endangered Species Act was effective August 8, 2007 (USDI 2007). The bald eagle is still classified as Threatened under the Oregon ESA and provided protection under federal law (e.g., Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act). The bald eagle is currently listed as Bureau Sensitive under the Bureau's Special Status Species Policy.

Bald eagles generally nest or roost within conifer-dominated stands 80-years-old or older. They can also be found in younger stands containing individual or scattered groups of residual old-growth. Nesting and roosting areas are usually located in proximity to a large river or lake. Bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh more than 1,000 pounds. Nest sites typically include at least one perch with a clear view of water where bald eagles usually forage.

#### Proximity to Known Eagle Sites

The nearest known bald eagle nest is the Raymond Creek site (site # OR\_0156), approximately one mile west of the proposed project area. This 80-acre BLM parcel contains an active nest and is an important communal winter roost site for bald eagles. Up to 40 eagles have been observed flying out of this communal roost in a single morning.

Perhaps the most important feature of the project area is its proximity to the Columbia River and Sauvie Island. Sauvie Island, with its accompanying wetlands and lakes is an important overwintering area for waterfowl and bald eagles. Bald eagles use this area year-round,

foraging primarily on fish and waterfowl. Breeding eagle pairs have historically nested on Sauvie Island and there are four active nests at present. Eagles roost and forage on and around the wildlife area, generally in proportion to food availability. In 2007, 38 bald eagles were documented on Sauvie Island (ODF&W 2009).

No known bald eagle nests have been recorded within the Rocky Point Project area. However, bald eagles have been observed landing in the project area enroute to Sauvie Island from the Raymand Creek site. Therefore, dispersed eagle usage, primarily roosting, may occur throughout the project area wherever suitable habitat (dominant conifers 80-120 years old with a clear view of water) is present. This occasional, dispersed eagle usage would most probably occur during the late fall or winter months when over-wintering eagles are present.

#### Suitable Bald Eagle Habitat

Bald eagle suitable habitat is considered to be conifer-dominated habitat generally 80-years - old or older, or younger stands containing scattered old-growth or larger second-growth trees located within approximately one mile of a major river or tributary. There are approximately 231 acres of marginally suitable bald eagle habitat within the proposed Rocky Point Project area. It is possible that a limited number of unidentified scattered individual trees or small groups of trees within the project area that have suitable roosting or resting structure for eagles. The primary purpose of the Rocky Point Project is to promote development and enhancement of overstory conifers that may improve roosting and nesting habitat for bald eagles.

## **Bats**

There are no known bat roosting or hibernaculum sites within the project area. Surveys for these species are required under the NWFP and ROD/RMP if caves, mines, or abandoned wooded bridges and buildings are within the project area. There is the possibility that some outbuildings on private property adjacent to the project may provide roosting or hibernaculum sites. No bat surveys are scheduled to be conducted within or near the Rocky Point Project.

Five bat species of concern, Townsend's big-eared bat (*Corynorhinus townsendii* - BS), long-eared myotis (*Myotis evotis* - BS), long-legged myotis (*Myotis volans* - BS), silver-haired bat (*Lasiurus noctivagans* - BS), and fringed myotis (*Myotis thysanodes* - BS), are known to inhabit mature and immature coniferous forest, and they may forage near riparian areas, open areas, and along forest edges and roads. They can utilize large hollow trees for roosting, hibernating, and maternity colonies. Accumulations of large logs, snags or live trees with defect such as loose bark and cavities may function as additional day or night roosts.

## **Red Tree Vole (*Arborimus longicaudus*)(BS/S&M)**

The red tree vole is generally associated with mature or old-growth conifer or mixed hardwood-conifer forests. Large branches of mature and old-growth trees provide stable support for nests, and interconnecting branches provide travel routes. Although red tree voles have been located within younger stands, especially if they contain a component of larger remnant trees, mature and old-growth stands are thought to be their optimal habitat. The project area contains suitable habitat for the red tree vole, although land-use history and relative isolation of this stand makes occupation highly unlikely.

Beginning in 2002, the BLM state office contracted strategic surveys for Red Tree voles within permanent Current Vegetation Survey (CVS) plots. There were fourteen CVS plots searched on the Salem District BLM, one of which is located within the Rocky Point project area. Thirty-five trees were climbed within the 5-acre CVS plot. No red tree vole nests were located.

### **Johnson's Hairstreak (*Callophrys johnsoni*)(BS)**

Johnson's Hairstreak is a small butterfly that is dependent on coniferous forests that contain mistletoes of the genus *Arceuthobium*. It is the only Bureau Sensitive insect that may be affected by the proposed action. Mistletoes of this genus occur mainly on western hemlock and occasionally true firs. The eggs of this butterfly are laid in mistletoe masses and the chrysalids overwinter there. The larvae feed on the leaves of the host plant. Historically the Johnson's Hairstreak was originally thought to occur throughout the Pacific Northwest in old-growth forests. The current range is uncertain with most of the records for this species in Oregon dating pre-1980.

### **Bird Species of Concern covered by the Migratory Bird Treaty Act (MBTA)**

Migratory Bird "Species of Concern" are defined as those species listed in:

- the periodic report, Birds of Conservation Concern, published by the Fish and Wildlife Service Division of Migratory Bird Management
- priority migratory bird species documented in comprehensive bird conservation plans (North American Waterbird Conservation Plan, United States Shorebird Conservation Plan, Partners in Flight Bird Conservation Plan)
- species or populations of waterfowl that the North American Waterfowl Management Plan identifies as a high, or moderately high, continental priority;
- listed threatened and endangered bird species in the Code of Federal Regulations – Title 50 (50 CFR 17.11)
- MBTA-listed game birds below desired population sizes.

Three MBTA Bird Species of Concern that are not considered Bureau Sensitive are suspected to occur within or near the project. They include purple finch, olive-sided flycatcher, and rufous hummingbird. These species use a wide variety of habitats, including late-successional forests, riparian areas, brush in recovering clear-cuts, and small trees in developing stands. Some birds, such as the olive-sided flycatcher, use canopy trees near edges for perching, and forage over adjacent clear-cuts. Other species also use early seral stage stands for nesting and foraging. Some of the younger plantations near the project area with lower tree and shrub heights could provide these optimal foraging conditions.

#### **2.3.2.7 Environmental Effects Alternative 1: No Action (BS, S&M, MBTA Wildlife)**

Under this alternative, the BLM would not implement the Rocky Point Project. The plant and animal communities in the project area would continue to be dependent upon ecological processes such as the natural CWD recruitment regime that is currently in place. Under the "No Action" Alternative, the identified impacts of the Proposed Action alternative upon wildlife and/or wildlife habitat would not occur within the identified treatment units at this time. The forest stands would continue to grow and develop without management intervention. The development of those features of late-seral stage habitat promoted by implementation of the Rocky Point Project (e.g. green trees with defects, snags, and large crowns) would be expected to occur at a slower pace than under Alternative 2.

Selection of the “No Action” Alternative would not be expected to adversely impact (i.e., result in a loss in population viability or elevate their status to any higher level of concern) any of the BS, S&M or MBTA wildlife species discussed above.

#### **2.3.2.8 Cumulative Effects**

There are no identified cumulative impacts to wildlife or wildlife habitat associated with the No Action Alternative.

#### **2.3.2.9 Environmental Effects Alternative 2: Proposed Action (BS, S&M, MBTA Wildlife)**

Primarily as a result of the nature and scope of the proposed project (including incorporated design features to minimize the potential for adverse impacts) as well as the nature of the habitats impacted, implementation of the Rocky Point Project would not be expected to result in the loss of population viability for any Bureau Sensitive, S&M, or MBTA species. Overall, a wide range of species including those that utilize or depend upon snags, green trees with defect and/or downed logs would be expected to benefit from implementation of the Rocky Point Project.

### **Mollusks**

Some mollusk species are known to make use of large and small woody debris, especially wood in later decay classes. The project proposes to augment existing CWD levels. Although relatively minor in scale, this could be viewed as beneficial to the maintenance and promotion of higher quality mollusk habitat.

Habitat-disturbing activities are defined as “*those disturbances likely to have significant negative impact on the species’ habitat, its life cycle, microclimate, or life support requirements*” as described in the ROD\_S&G, Attachment 1, p.22 (USDA/USDI 2001). Based upon the various project design features, as well as the nature of the treatments, the Rocky Point Project is not expected to be “habitat disturbing” to the point of triggering the need for pre-project mollusk surveys. In fact, falling of hardwoods and conifers may have a net beneficial effect on mollusks. Should any populations of mollusk species of concern be present within or near a treatment unit, the project would not be expected to adversely impact the maintenance of the population at the site, or contribute to the need to elevate their status to any higher level of concern, including the need to list under the ESA.

### **Bald Eagle**

#### Impacts to Known Eagle Sites

Because of the high visibility of bald eagles and bald eagle nests, it is unlikely that this project would be located in areas with undiscovered bald eagle nests or roosts. If a new bald eagle nest or roost is discovered, any project activity within 0.25 mile or 0.5-mile sight distance would immediately be evaluated by the unit Wildlife Biologist for potential effects on bald eagles and mitigated to prevent disturbances. No impacts to any known eagle sites would be expected to result from implementation of the Rocky Point Project.

#### Suitable Bald Eagle Habitat Modification

Bald eagles prefer older trees that have an open branching pattern in the top half of the tree. These types of trees along with snags and trees with exposed lateral limbs are critical to bald eagle populations (Anthony et. al., 1982). Trees that have these structures are usually formed when the top of a mature dominant conifer is snapped off in strong wind events that are relatively frequent in the Pacific Northwest. Over time, alternate branches assume a role as

the dominant leader and the tree continues to grow vertically. The deformation created by a snapped top acts to provide future platforms that are able to support the weight of an eagle nest.

Conifers in the Rocky Point project area are approximately 80-120 years old. Trees in this age class seldom exhibit the type of decadence that is preferred by bald eagles. This project would promote the continued and accelerated development of bald eagle nesting and roosting habitat. The creation of deformed tops in dominant conifers by topping, and promotion of large crowns by releasing dominant conifers, has the potential for long-term beneficial impacts to the quality of eagle habitat within the area by providing an increased opportunity for roosting sites and, given enough time, nest sites.

Due to the nature of the project and its expected positive impacts, the Rocky Point Project would have no adverse effect on bald eagles based on habitat modification.

#### Potential for Disturbance

There are no known eagle nests or communal roost sites within one-quarter mile of the project area. Dispersed eagle usage may occur throughout the project area, but this eagle usage of the area would most probably occur during the late fall or winter months. As a result of project implementation, the project may generate noise above the ambient level which could displace roosting bald eagles. It is expected that displaced birds would temporarily relocate to other areas containing suitable habitat and lower levels of disturbance activity.

#### **Bats**

The Rocky Point Project may marginally improve the quality of bat habitat. These treatments could potentially provide additional roosting and foraging opportunities for a number of bat species by creating small openings in the forest canopy, and by augmenting existing quantities of snags, logs, and green trees with defect within the treated stands.

#### **Red Tree Vole**

There are no planned surveys for the red tree vole because this project does not trigger the need for surveys according to Criteria 3 from the Survey Protocol for the Red Tree Vole: “*The proposed project is a habitat disturbing activity that has the potential to cause significant negative effect on the species habitat or the persistence of the species at the site*” (USDA-USDI 2002). Including provisions in snag and CWD projects that protect against selecting trees that appear to have nest structures, or avoiding the selection of trees that when treated would impact trees with nest structures, would greatly reduce the possibility of encountering active red tree vole nests during project implementation. Consequently, snag and CWD projects, properly done, would not “cause significant negative effect on the species habitat or the persistence of the species at the site” and therefore would not meet Criterion 3, and since not all three criteria are met, surveys would not be required.

The physical integrity of the treated stands to maintain and provide for expansion of a population of red tree voles would not be impacted. The number of trees to be treated would not appreciably open the overall canopy and its related interconnected branches. Therefore, impacts to red tree voles if they were to occupy the area of the proposed action are expected to be very unlikely as a result of implementing the Rocky Point Project. Finally, Project

Design Features that deal with the unlikely scenario of encountering an active red tree vole nest would further protect this species (see Section 2.2.3).

The project may have future beneficial effects to tree voles because creating defects and promoting the development of larger crowns in dominant trees could eventually facilitate larger colonies of red tree voles if present in the project area. Based upon the nature and scope of the proposed project, implementation of the project is not expected to result in the elevation of the status of the red tree vole to any higher level of concern or affect its persistence at the site.

### **Johnson's Hairstreak**

Since the project would only target Douglas-fir trees for treatment there is very little likelihood that the Johnson's hairstreak would be affected by the project. The only possibility would be if a felled or topped tree damages a western hemlock limb that is infected by mistletoe, which also happens to be host to the butterfly larvae. Therefore, it is highly unlikely that this project would adversely affect populations of Johnson's hairstreak.

### **Bird Species of Concern covered by the MBTA**

The implementation of the Rocky Point Project could temporarily displace individual migratory birds as they react to the disturbance created by project implementation. Depending upon a number of factors, including the timing of the disturbance relative to breeding chronology, intensity and duration of the disturbance, distance to the nest site, and tolerance to disturbance, some portion of the created disturbance could result in nest abandonment or failure. However, the failure of a nesting attempt during one nesting season would not be expected to reduce the persistence of any bird species in the watershed. The Rocky Point Project may have minor beneficial effects for other bird species although the project is designed to improve bald eagle habitat.

#### ***2.3.2.10 Cumulative effects***

Additional nesting and foraging opportunities for some birds and mammals can be expected by accelerating growth of live crowns and by creating small gaps. As a result, there should be a positive effect to wildlife habitat over time.

Because there are no direct or indirect adverse impacts to wildlife habitat, there are no identified adverse cumulative impacts to wildlife habitat by implementing the Rocky Point Project. BLM has no other plans for the project area in the near future.

### ***2.3.3 Threatened or Endangered Fish Species or Habitat, Essential Fish Habitat (EFH), and Bureau Status and Special Status Species***

#### ***2.3.3.1 Affected Environment***

The Rocky Point Project would occur along small 1<sup>st</sup> and 2<sup>nd</sup> order intermittent and perennial streams with active channel widths of 1 to 3 feet and no fish presence. The nearest ESA listed fish or critical habitat (CH) occur approximately 1.4 miles downstream from the project area in the Multnomah Channel of the Willamette River. Listed fish potentially present in Multnomah Channel include Threatened Upper Willamette Chinook and Steelhead.

The project as proposed would treat approximately 92 acres to increase the abundance of quality habitat for Bald Eagles. Approximately 51 of the total proposed treatment acres are within the Riparian Reserve LUA. The 51 acres within riparian reserves are broken into 19 acres that are adjacent to small 2<sup>nd</sup> order perennial streams and 32 acres located adjacent to small 1<sup>st</sup> order intermittent streams. The small 1<sup>st</sup> order streams would likely have little to no flow during the defined project work period. Based on the design criteria outlined in the proposed action (EA section 2.2.3), treatments within the riparian reserves would girdle or fell approximately 44 trees in riparian reserves adjacent to perennial streams and 149 trees in riparian reserves adjacent to intermittent streams. Breaking these numbers down in terms of trees per acre treated within riparian reserves equates to approximately 2.3 trees per acre adjacent to perennial streams, and approximately 4.6 trees per acre adjacent to intermittent streams. The treated trees would be a mix of conifer and hardwoods as described in the proposed action from well-stocked conifer dominated stands with an average of 140 trees per acre.

### **2.3.3.2 Environmental Effects**

The only potential areas of the proposed action that could affect the fisheries resource are the proposed treatments within the riparian reserves. Within these reserves, there is a possibility of small local disturbances to stream channels that may impact soils and stream banks. These effects would be contained to within 50 feet of site-specific treatments. There are no fish present in or near the project area, and the closest listed fish habitat (LFH) or critical habitat (CH) for ESA or EFH listed species is 1.4 miles downstream of the project area in the Multnomah Channel. The proposed treatment of 2.3 trees per acre adjacent to perennial streams and 4.6 trees per acre adjacent to intermittent streams within well-stocked forested stands with an average of 140 trees per acre would be expected to have no negative effect to the fisheries resource.

Due to the distance from listed fish, LFH, or CH, and the very small, localized disturbance to riparian forest habitat and stream channels, there is no causal mechanism for the proposed project to adversely affect listed fish or their habitat. The potential effects have been reviewed and the project as proposed would have “No Effect” to any ESA or EFH listed fish or their Critical Habitat or Bureau Status or Special Status Species.

### **2.3.3.3 Cumulative Effects**

The fisheries analysis for the proposed action identified no direct or indirect adverse effects to the fisheries resource and therefore would not contribute to cumulative adverse effects as a result of implementing the project as proposed. There is a potential for long-term minor indirect beneficial effects to fish by adding a small amount of CWD upstream of existing fish distributions. The small increase in CWD could incrementally enhance water quality over time by improving sediment storage and routing and hydrologic processes that may eventually improve stream conditions downstream where fish populations are present.

### **2.3.4 Unaffected Resources**

The following resources are either not present or not affected by either alternative: Air Quality, Wild and Scenic Rivers, Invasive and Non-native Plant Species, Water Resources, Recreation, and Cultural and Visual Resources.

### **3 LIST OF PREPARERS**

The following individuals participated on the interdisciplinary team or were consulted in the preparation of this EA:

ID Team Lead, Editor, Biologist (Wildlife)	David Larson	<u>Natural Resource Specialist</u>
NEPA, technical review	Bob McDonald	<u>Environmental Coordinator</u>
Silviculture	Carrie Miller	<u>Forester</u>
Planning and Layout	Andy Pampush	<u>Wildlife Biologist</u>
Soils, Hydrology	Dennis Worrel	<u>Soil Scientist</u>
Fish Biology, GIS	Russ Chapman	<u>Fish Biologist</u>
Botany and Invasive Species	Kurt Heckerth	<u>Botanist</u>
Outdoor Recreation and Visual Quality	Debra Drake	<u>Recreation Planner</u>

## Appendix 1 – Public Comments to Scoping for the Rocky Point Bald Eagle Habitat Enhancement Project, including BLM Responses

On December 15, 2009, the BLM sent a Scoping Letter to 11 individuals, organizations and agencies. As a result of this scoping effort, BLM received one letter expressing support for the project, and one letter from the Scappoose Bay Watershed Council providing comments and expressing concerns for the project. All comments and concerns presented in this appendix are direct quotes from the comment letters received.

### Project Record Document 7

Rita Beaston  
Scappoose Bay Watershed Council  
57420-2 Old Portland Road  
Warren, OR 97053

### **Thinning**

*“If thinning could be done without so much equipment tearing everything to pieces it would benefit overall forest health in a section set aside for eagles.”*

*“Since the project area includes headwall and stream initiation areas, will thinning be confined to areas outside of landslide prone areas and away from any seeps and springs?”*

#### *Other concerns that were raised:*

*“-dominant and co-dominant trees be retained”*

*“over-story canopy closure levels be retained to promote wind-firmness”*

*“-under-represented tree species appropriate to the site (western hemlock, cedar???) be retained during thinning operations”*

*“trees dropped be left on site as LWD for amphibians and other species or used in stream restoration projects”.*

#### **BLM Response:**

The Rocky Point Project is not a thinning and does not include the use of heavy equipment to accomplish the project goals. Although the project is located on 240 acres of BLM forested stands, further analysis determined that only 92 acres would be included in the project. Of these acres, 24 acres would have approximately 1 tree/acre chosen to have its top severed within the live crown. On the scale of the entire stand, there would be no effective impact upon average canopy closure. No large openings would be created and no other trees would receive treatment. Sixty-eight acres would have approximately 5 sub-dominant trees/acre selected for felling and/or snag creation (only Douglas-fir and some hardwoods) to release a total of approximately 85 dominant or co-dominant trees. The treated trees would be a mix of conifer and hardwoods from well-stocked conifer-dominated stands with an average of 140 trees per acre. This treatment would create small gaps throughout the forested stands, but the gaps are not expected to increase the likelihood of blow-down. Although the project area contains small headwall streams, treatments would primarily occur on ridges that offer a clearer view of adjacent foraging areas and easier access for nesting and roosting bald eagles. A detailed description of the proposed treatments is found in *EA Section 2.2.3*.

## **Additional Issues**

*“Overall, I favor creation or preservation of a few large snags in an otherwise healthy stand of mature firs. Another option is to simply girdle a few large limbs on living firs. Eagles often use dead limbs in live trees. It isn’t necessary to kill the tree to make it useful as a roost. The best option is to allow most of the mature trees to live for centuries. They then develop huge outreaching limbs that are good for roosting or nesting without any hands-on management”*

*“-culturing or thinning around target snags be limited to competing trees within or directly adjacent to the dripline... target tree crown circumference approximates the area of root competition, plus you want canopy around future snags.”*

*“is there a scientific basis that supports that trees targeted for release (80yr) will respond to thinning (Tappeiner study?)”*

### **BLM Response:**

Snags created from the tree release portion of the project would consist of sub-dominant trees under the canopy of, or directly adjacent to, dominant trees chosen for release. At this point in time, there are few if any limbs in dominant Douglas-firs large enough to support roosting or nesting eagles within the proposed stands. The purpose of this project is to either create trees with deformations suitable for future roosting and nesting sites, or accelerate the growth of dominant trees for development of larger crowns and branches. No dominant trees selected for this project are expected to be killed as a result of this project.

Although the positive growth response of healthy young trees to density reduction is well known, Latham and Tappeiner (2002) demonstrated that older trees also respond well to increased growth following density reduction.

## Appendix 2 – Past, Present, and Reasonably Foreseeable Future Actions for the Rocky Point Bald Eagle Habitat Enhancement Project

This list contains a number of identified ongoing and/or past, present or reasonably foreseeable future projects, activities or programs of work; it serves as a source or pool of activities that various specialists may have considered while describing affected environments or conducting effects analysis for the Rocky Point Project. Depending upon the resource and/or temporal or spatial scale of the analysis, projects to be considered include those projects which may continue to impact or are expected to impact the same resource at the same time and place as the proposed action, and/or have contributed to the current condition in a manner that still has impacts upon the same resources.

- An occasional discretionary O&C Road Use Permit to haul timber or rock on BLM-controlled roads.
- Road use and new road construction via non-discretionary right-of-way agreements with industrial timber companies.
- Historic BLM forest management practices in the area have had results that are still being realized today. Thousands of acres of mature stands were railroad logged in the 1930s and 1940s. Most of the snags or green trees with defect which were present at the time of harvest were felled or harvested. Clearcut harvesting fragmented much of the existing mature forest habitat and reduced patch sizes.
- Less information is available on habitat altering management activities that are scheduled to occur on non-Federal (private) lands adjacent to or across the larger landscape. The general trend on private land is one of harvest activities that result in decreasing quantities of mid- and late-seral habitat. The majority of the non-Federal forestland within the projects area is either privately owned by industrial timber companies (managed for timber production on relatively short rotations) or by small landowners that are retaining these parcels as small woodlots or future rural homesteads. This effectively results in the private land base being maintained in a continual condition of earlier seral stage habitats and generally precludes the development and/or maintenance of mid- or late-seral habitats and/or some habitat features such as large high quality snags.

## Appendix 3 - Glossary

### Abbreviations, Acronyms, and Terms

Glossary Item	Definition
ACS	Aquatic Conservation Strategy. A set of objectives developed to restore and maintain the ecological health and aquatic habitat of watersheds
Alternative	Proposed project (plan, option, choice)
Anadromous fish	Species that migrate to oceans and return to freshwater to reproduce.
BLM	Bureau of Land Management. Federal agency within the Department of Interior responsible for the management of 275 million acres.
Bryophytes	Non-vascular plants that include mosses, liverworts and hornworts.
Canopy	The interspersed crowns in a forested stand. Canopies may be relatively open, as in older stands that have “self-thinned” or have suffered from windthrow or decay, or closed, as in young stands that are closely spaced together.
Crown	The portion of a tree with live limbs.
Cumulative effects	Past, present, and reasonably foreseeable effects added together (regardless of who or what has caused, is causing, and might cause those effects)
CWD	Coarse Woody Debris refers to a tree (or portion of a tree) that is dead or has fallen or been cut and left in the woods. CWD usually refers to pieces at least 20 inches in diameter as described in the Northwest Forest Plan.
DBH	Diameter of a tree at breast-height – measurement is at 4.5 feet on the uphill side of the tree.
Decay Class 1-5	The condition of dead wood (standing or down). Decay classes range from 1( indicates that the wood is recently dead with bark still attached) to 5 (wood has been dead for a long time and is crumbling)
EA	Environmental Assessment
ESA	Endangered Species Act. Federal legislation that ensures federal actions will not jeopardize the continued existence of any threatened or endangered species.
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy Management Act
FONSI	Finding of No Significant Impact
Girdle	Removal of the inner bark from the entire circumference of a tree. This typically results in the death of the tree within 3-5 years.
ID Team	Inter Disciplinary Team. BLM term for a group of specialists that work together on a project.
Invasive Plant	Any plant that is not native to an area, is able to establish itself aggressively, and is difficult to manage.

Glossary Item	Definition
LSR	Late-Successional Reserve (a NWFP designated LUA). Lands to be managed or maintained for older forest characteristics.
LSRA	Late-Successional Reserve Assessment for Oregon Coast Province
LUA	Land Use Allocation. NWFP designated lands to be managed for specific objectives
MSA	Magnuson-Stevens Fishery Conservation and Management Act (Oct 11, 1996) Act written to protect and preserve commercially important fish species and their habitat. Consultation under this act is required for all federal actions that may affect designated fish or their habitat.
Native Plant	Species that historically occurred or currently occur in a particular ecosystem and were not introduced
NEPA	National Environmental Policy Act (1969)
NMFS	National Marine Fisheries Service. Federal agency within NOAA which is responsible for the regulation of anadromous fisheries in the U. S.
NOAA	National Oceanic Atmospheric Administration. Agency within the Department of Commerce responsible for regulating migratory fisheries
Non-native plant	Any species that historically does not occur in a particular ecosystem or were introduced
Noxious weed	A plant species designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or diseases; or non-native, new, or not common to the United States.
NWFP	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 Related Species within the Range of the Northern Spotted Owl (1994) (Northwest Forest Plan).
OC (coho)	Oregon Coast. Designated evolutionary significant unit for coho salmon.
O&C Land	Oregon & California Act of 1937. Generally BLM Land managed for sustained timber production, water quality, fish and wildlife populations and healthy forests.
ODF&W	Oregon Department of Fish and Wildlife. Oregon State Agency responsible for the management and protection of fish and wildlife.
Resident (fish)	Population of fish that is not anadromous, and migrates only within a specific watershed or stream.
RMP	Salem District Resource Management Plan (1995)
RMP/FEIS	Salem District Proposed Resource Management Plan / Final Environmental Impact Statement (1994).
ROD	Record of Decision. Document that approves decisions to the analyses presented in the FEIS.
Riparian Reserves (RR)	Riparian Reserves (NWFP LUA). Lands on either side of streams or other water feature designated to maintain or restore aquatic habitat.

Glossary Item	Definition
Rural Interface	BLM lands within ½ mile of private lands zoned for 1 to 20 acre lots. Areas zoned for 40 acres and larger with homes adjacent to or near BLM lands.
S&M_FSEIS	Final Supplemental Environmental Impact Statement for Amendment to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines (2001).
ROD_S&G	Record of Decision and Standards and Guidelines for Amendment to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines (2001).
Late-Seral	Advanced high quality habitat stage of a series of plant communities that succeed one another. (Generally a mature/multi- layer canopy forest structure)
Silviculture	The manipulation of forest stands to achieve desired structure.
Snag	A dead standing tree lacking live needles or leaves
SSS	Special Status Species (BLM manual 6840)
Succession	The stages a forest stand makes over time as vegetation competes and natural disturbances occur.
USDI	United States Department of the Interior
Wind-throw	Trees blown over by wind. Usually have rootwads still attached.

## Appendix 4 – Aquatic Conservation Strategy Consistency

Documentation of Consistency with the Nine Aquatic Conservation Strategy Objectives for the Rocky Point Project.

<i>Aquatic Conservation Strategy Objective</i>	<i>Remarks (No Action Alternative addresses all projects )</i>
<p>1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 1</i></p>	<p><b>No Action Alternative:</b> 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.</p> <p><b>Action Alternative:</b> Creation of CWD and structural diversity in the project area would enhance, to a small degree, the complexity of forest stands within the project area. At the landscape scale, diversity and complexity of watershed and landscape-scale features would improve or be maintained.</p>
<p>2. Maintain and restore spatial and temporal connectivity within and between watersheds.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 2</i></p>	<p><b>No Action Alternative:</b> The No Action alternative would have little effect on connectivity except in the long term within the affected watersheds.</p> <p><b>Action Alternative:</b> Creation of CWD and structural diversity would improve, to a small degree, connectivity within and between watersheds by enhancing habitat for late successional dependant species in the treatment areas.</p>
<p>3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 3</i></p>	<p><b>No Action Alternative:</b> The current condition of physical integrity would not be affected and would be dependent on natural processes.</p> <p><b>Action Alternative:</b> The proposed action would have very minimal localized effects to stream banks and the aquatic system from potentially introducing a small amount of LWD into streams. This would help restore channel complexity and increase channel stability at the site scale and would maintain physical integrity at the watershed and landscape scale.</p>
<p>4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 4</i></p>	<p><b>No Action Alternative:</b> It is assumed that the current condition of water quality would be maintained.</p> <p><b>Action Alternative:</b> The proposed action would have very minimal localized effects to water quality adding LWD to stream channels, thereby improving sediment storage and routing. This action would maintain water quality at the watershed and landscape scale.</p>

<b><i>Aquatic Conservation Strategy Objective</i></b>	<b><i>Remarks (No Action Alternative addresses all projects )</i></b>
<p>5. Maintain and restore the sediment regime under which aquatic ecosystems evolved.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 5</i></p>	<p><b>No Action Alternative:</b> It is assumed that the current levels of sediment into streams would be maintained.</p> <p><b>Action Alternative:</b> The proposed action would have very minimal localized effects to the sediment regime. There is the potential for short-term localized sediment pulses from felled trees disturbing stream banks. These pulses would not be visible more than fifty feet downstream of the disturbance and the introduction of LWD to the stream channel would help to restore natural sediment processes that contribute to improved sediment storage and routing and water quality at a localized scale. These processes would be maintained on a watershed or landscape scale.</p>
<p>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.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 6</i></p>	<p><b>No Action Alternative:</b> No change in in-streams flows would be anticipated.</p> <p><b>Action Alternative:</b> The proposed action would have no effect to instream flows and would maintain the current condition.</p>
<p>7. Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 7</i></p>	<p><b>No Action Alternative:</b> 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.</p> <p><b>Action Alternative:</b> The proposed action would have no effect on the timing, variability or duration of floodplain inundation, or water table elevations. The current condition would be maintained.</p>
<p>8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 8</i></p>	<p><b>No Action Alternative:</b> The current species composition and structural diversity of plant communities will continue along the current trajectory. Diversification would occur over a longer period of time.</p> <p><b>Action Alternative:</b> The proposed action would have minimal site-scale beneficial effects to species composition and structural diversity. The proposed project would increase the structural diversity of the forested stands in the vicinity of the treatments, and structural diversity would be maintained on a watershed and landscape scale.</p>

<i>Aquatic Conservation Strategy Objective</i>	<i>Remarks (No Action Alternative addresses all projects )</i>
<p>9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.</p> <p><i>None of the Alternatives retard or prevent the attainment of ACS objective 9</i></p>	<p><b>No Action Alternative:</b> Habitats will be maintained over the short-term and continue to develop over the long-term with no known impacts on species currently present.</p> <p><b>Action Alternative:</b> The proposed project would provide site-scale improvements to habitat that supports these riparian dependent species. This habitat would be maintained at the watershed and landscape scale</p>

## Appendix 5 – Review of Elements of the Environment Based On Authorities and Management Direction

In accordance with law, regulation, executive order and policy, the interdisciplinary team reviewed the elements of the human environment to determine if they would be affected by the alternatives described in EA (environmental assessment). The following table summarizes the results of that review. Those elements that are determined to be “affected” will define the scope of environmental concern.

<b>Elements of the Environment Review based on Authorities and Management Direction</b>		
<b>Elements of the Environment</b>	<b>Status 1/ Not Present 2/ Not Affected 3/ Affected</b>	<b>Interdisciplinary Team Remarks</b>
Air Quality (Clean Air Act)	Not Affected	The Rocky Point Project would slightly increase the amount of slash within the treatment areas. These accumulations would not be expected to result in an increase in fire hazard on the project level scale and the change would not be measurable on the watershed scale. Since no burning is recommended, the proposed action would have no adverse impact on air quality and would comply with the provisions of the Clean Air Act.
Areas of Critical Environmental Concern	Affected	Areas of Critical Environmental Concern are established to protect important and relevant values that require special management attention. The Lower Scappoose Creek ACEC (Rocky Point Project area) was analyzed for designation because the surrounding area includes an active bald eagle nest and a communal winter roost (Raymond Creek Site). It is unique in the sense that it provides refugia from surrounding private industrial forestlands and expanding urban areas, and is also contributing to the resurgence of bald eagles along the lower Columbia River bald eagle recovery zone. The Rocky Point Project is expected to have a positive effect on resource values for which the area was proposed as an ACEC by accelerating ecological processes that will benefit bald eagles
Cultural, Historic, Paleontological	Not Affected	There are no cultural resources known or suspected to be present in the proposed project area. A cultural resource survey would not be conducted because the project action is not expected to create new ground disturbance or potentially affect historic properties.
Downstream Beneficial Uses other than Fisheries	Not Affected	Project activities are not expected to result in ground disturbance. There would be no impacts to water quality or downstream beneficial uses.
Energy Resources	Not Affected	There currently are no energy developments within the proposed project area that would be affected and at the completion of the proposed project; the areas would maintain their current suitability for energy development opportunities. The proposed project would have no effect on energy development, production, supply and/or distribution.
Environmental Justice (Executive Order 12898)	Not Affected	The proposed projects are not anticipated to have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.
Fire Hazard	Not Affected	The Rocky Point Project would slightly increase the amount of slash within the treatment areas, as measured in tons per/acre. The small addition of large wood (1000 hour fuels) would not change the overall fuel loading to a point where it would increase the potential fire hazard.
Flood Plains (Executive Order 11988)	Not Present	There are no flood plains located within the proposed project area.

## Elements of the Environment Review based on Authorities and Management Direction

Elements of the Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks
Forest Vegetation Associated with Late-Successional Reserves and Riparian Reserves	Not Affected	Felling and girdling of trees within Riparian Reserves is not expected to have a negative impact on forest vegetation. The project area is not located within a late-successional Reserve.
Hazardous or Solid Wastes	Not Affected	The project would not generate hazardous or solid wastes in the project area. The project area is behind locked gates and are not accessible to the public, so there would be no increase in illegal dumping of waste as a result of the proposed project.
Invasive, Nonnative Species (Executive Order 13112)	Not Affected	Project design features such as girdling or felling of individual trees would not result in the type or amount of disturbance that would allow for an increase in populations of invasive, non-native species. Because these activities would occur within established native plant associations, existing competition from native populations would mitigate the establishment of any invasive, non-native species. There would be no ground disturbance in this project, so invasive, nonnative species would not be affected
Key Watershed	Not Present	The project is not located within a Key Watershed.
Land Uses (rights-of-way, permits, etc)	Not Present	There are no known land uses that would be affected by the proposed project.
Mineral Resources	Not Affected	There currently are no mineral leases within the proposed project area that would be affected, and at the completion of the proposed project, the area would maintain its current suitability for mineral development opportunities.
Native American Religious Concerns	Not Affected	There were no Native American religious concerns associated within the proposed project area identified during the public scoping period.
Prime or Unique Farm Lands	Not Present	There are no Prime or Unique Farm Lands within the proposed project area.
Recreation	Not Affected	The proposed project is primarily located on lands accessed through gated private holdings, providing no motorized public access. Mountain-biking trails on private lands are located adjacent to the project area but would not be affected by the Rocky Point Project.
Rural Interface Areas	Not Present	There are no mapped Rural Interface Areas located in the proposed project area.
Soils (productivity, erodibility, mass wasting, etc.)	Not Affected	Project activities (girdling, topping and falling trees) would not result in any major ground disturbance or affect soil resources.
Threatened or Endangered Plant Species or Habitat	Not Affected	There are no threatened or endangered plants that would be affected by this project.
Survey & Manage (S&M) Plant Species and Habitat	Not Present	<p><i>Hypogymnia duplicata</i> is uncommonly found on the boles of older conifers. <i>Platismatia lacunosa</i> is uncommonly found on boles of red alder in moist riparian forests. Botanical surveys for these two S&amp;M lichens that could be negatively affected by this project were completed in May 2010. The two species were not found.</p> <p>Older down logs may be ideal substrate for bryophytes and lichens. Felled trees would be selected in such a way as to minimize impacts to existing decay class 3, 4, and 5 down logs (Section 2.2.3).</p>

## Elements of the Environment Review based on Authorities and Management Direction

Elements of the Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks
Threatened or Endangered Fish Species or Habitat	Not Present	Addressed in EA (Section 2.3.4.2)  There are no known ESA-listed fish species or Critical Habitat located within or near the proposed project area.
Fish Species with Bureau Status and Essential Fish Habitat	Not Present	There are no fish species with Bureau Status or Essential Fish Habitat located within or near the proposed project area.
Threatened or Endangered Wildlife Species, Habitat and/or Designated Critical Habitat	Not affected	Addressed in EA (Section 2.3.2)  This project is in concurrence with the biological assessment of activities that have the potential to disturb spotted owls and marbled murrelets within the North Coast Planning Province for FY 2010-2013 (FWS Reference 13420-2009-I-0152).
Bureau Special Status and SEIS Special Attention Wildlife Species and Habitat	Affected	Addressed in text (Section 2.3.3)
Visual Resources	Not Affected	Project activities (girdling, topping and falling trees) would not result in any major modification of Visual Resources.
Water Resources (including ground and surface water quality)	Not Affected	Project activities (girdling, topping, and falling trees) are not expected to result in ground disturbance. They would not alter the current condition of the aquatic system either by affecting in-stream flows, physical integrity, water temperature, or the sediment regime.
Wetlands (Executive Order 11990)	Not Affected	Project activities (girdling, topping and falling trees) are not expected to result in ground disturbance. Nearly all activities will occur on uplands.
Wild and Scenic Rivers	Not Present	There are no Wild or Scenic Rivers located within the proposed project area.
Wilderness	Not Present	There are no Wilderness Areas located within or near the proposed project area.

## Appendix 6: BLM Sensitive Wildlife That May Occur In The Rocky Point Project Area

Common Name	Status*	Impact Synopsis
<b>Mammals:</b>		
Columbia White-tailed Deer ( <i>Columbia River DPS</i> )	ESA-Endangered	Not affected – Not in range
Fringed Myotis	BLM- Sensitive Salem RMP	<b>Affected – minor beneficial effects See Sec. 2.3.3</b>
Long-eared Myotis	Salem RMP	<b>Affected – minor beneficial effects See Sec. 2.3.3</b>
Long-legged Myotis	Salem RMP	<b>Affected – minor beneficial effects See Sec. 2.3.3</b>
Silver-haired Bat	Salem RMP	<b>Affected – minor beneficial effects See Sec. 2.3.3</b>
Townsend’s Big-eared Bat	BLM- Sensitive, Salem RMP	Not affected – No roosting habitat in area
Red Tree Vole	BLM- Sensitive, S&M	<b>Affected – See Sec. 2.3.3 for analysis</b>
<b>Birds:</b>		
Bald Eagle	BLM- Sensitive	<b>Affected – See Sec. 2.3.3 for analysis</b>
Black Swift	MBTA	Not affected – No habitat within project area
Harlequin Duck	BLM- Sensitive	Not affected – Project not within suitable habitat
Horned Lark ( <i>strigata</i> ssp.)	MBTA	Not affected – Project not within suitable habitat
Lewis’ Woodpecker	BLM- Sensitive	Not affected – Project not in suitable habitat
Marbled Murrelet	ESA-Threatened	Not affected – Outside of potential range
Northern Spotted Owl	ESA-Threatened	<b>Affected – See Sec. 2.3.2 for analysis</b>
Olive-sided Flycatcher	MBTA	<b>Affected – minor beneficial effects See Sec. 2.3.3</b>
Oregon Vesper Sparrow ( <i>affinis</i> ssp.)	MBTA BLM-Sensitive	Not affected – Project not in suitable habitat
Peregrine Falcon	MBTA BLM-Sensitive	Not affected – No habitat affected
Purple Finch	MBTA	<b>Affected – minor beneficial effects See Sec. 2.3.3</b>
Purple Martin	BLM- Sensitive	Not affected – No habitat affected
Rufous Hummingbird	MBTA	<b>Affected – minor beneficial effects See Sec. 2.3.3</b>
Willow Flycatcher	MBTA	Not affected – Found primarily in early seral habitat
<b>Reptiles and Amphibians:</b>		
Cope’s Giant Salamander	BLM-Sensitive	Not affected – No impact to stream habitat
Northwestern Pond Turtle	BLM- Sensitive	Not affected – No habitat within project area
Painted Turtle	BLM- Sensitive	Not affected – No habitat within project area
<b>Invertebrates (Mollusks):</b>		
Crowned tightcoil (snail)	BLM- Sensitive	<b>Affected – See Sec. 2.3.3 for analysis</b>
Evening Field slug	BLM- Sensitive, S&M	Not affected – Preferred habitat excluded from project
Oregon Megomphix	S&M	<b>Affected – See Sec. 2.3.3 for analysis</b>
Pacific Walker (snail)	BLM- Sensitive	Not affected – Not in range
Puget Oregonian (snail)	BLM- Sensitive, S&M	<b>Affected – See Sec. 2.3.3 for analysis</b>
Salamander slug	BLM- Sensitive	<b>Affected – See Sec. 2.3.3 for analysis</b>
Spotted taildropper (slug)	BLM- Sensitive	<b>Affected – See Sec. 2.3.3 for analysis</b>
Tillamook Westernslug	BLM- Sensitive	<b>Affected – See Sec. 2.3.3 for analysis</b>
Warty jumping slug	BLM- Sensitive, S&M	<b>Affected – See Sec. 2.3.3 for analysis</b>
<b>Invertebrates (Arthropods):</b>		
Johnson’s Hairstreak (butterfly)	BLM- Sensitive	<b>Affected – See Sec. 2.3.3 for analysis</b>

ESA-Endangered/Threatened – Listed under Endangered Species Act as Endangered or Threatened

BLM-Sensitive – Listed as Sensitive under the BLM’s Manual 6840 Special Status Species Policy

Salem RMP – Species with specific management direction in the Salem RMP

MBTA – Bird covered by the Migratory Bird Treaty Act

S&M – Survey and Manage (SEIS Special Attention Species in Salem RMP)

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