

Pre-Operations Report

Operation Name: Tunnel Selective
County: Lane
Management Basin: Western Lane
Legal Description: Sec 9 & 10, T18S, R9W

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Medium Thinning		42

Net acres do not include in-unit stream buffers.

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The sale area is 17 miles east of Florence. Elevation is approximately 1200 feet. The climate is cooler and wetter than Eugene. Slopes are steep and broken.

II. CURRENT STAND CONDITION:

The area contains conifer stands about 100 years old that originated after wildfires. All of the area is UDS structure with heavy brush, much down wood, and some snags.

Table 2. Stand Inventory Information (Net Acres)

Area	Prescription	Stand ID ¹	Main Species	Age	DBH	BA	TPA	SDI	Acres ²
1	Medium Thinning	618	DF	100	21	250	100	54	42
	Target Stand				28	170	40	32	

- 1 The source of stand inventory information is OSCUR grown forward to 1999, except age is revised to present.
- 2 Net acres are based on orthophotos and does not include stream buffers.

III. DESIRED STAND CONDITION and VISION:

The entire sale area has a Desired Future Condition of Older Forest Structure. This harvest is designed to increase the growth of the largest trees, maintain

Western Lane District

2009 Pre-Operations Report

Tunnel Selective

1/11/08

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crown lengths on the overstory trees, and encourage layering by giving more light to understory shade tolerant species.

Table 3. Stand Structure Information (Net Acres)

Area	Stand ID	Current	Post Harvest	Desired Future	Acres
All	618	UDS	UDS	OFS	42

IV. PROPOSED MANAGEMENT PRESCRIPTION and ANTICIPATED PATHWAY:

Harvest Type: Medium thinning.

Leave Trees. Leave approximately the 40 largest Douglas-fir per acre, plus all species other than Douglas-fir and alder.

Snags. SLI in the general area shows that numerous snags exist. These snags will be left if not safety or operational hazards. In addition, 100 trees will be topped or girdled above the 2nd whorl of live limbs to create future wildlife trees.

Down Wood. SLI in the general area suggests this stand currently has over 2000 cubic feet per acre of down wood. Additional down wood will come from broken pieces and missed logs. No trees will be felled specifically to create additional down wood at this time.

Reforestation: Hemlock and some cedar and maple will seed in and slowly grow in the shade of the residual timber. The harvest will release shade tolerant understory trees and give them new vigor.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	X
Planned Quarter: 4			

	Conifer	Hardwood	Total
Net Volume (MBF)	1000	0	1000
Stumpage Value (\$/MBF)	\$375	\$350	
Estimated Gross Value	\$375,000	0	\$375,000
		Project Costs:	\$34,000
		Estimated Net Value:	\$341,000

VI. TRANSPORTATION PLANNING AND HARVESTING:

The sale area will logged by cable between September 15 and April 15.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0.6	0
Improve	0	1.2	0	0
Maintain	0	1.9	0.6	0
Close/Block	0	0.9	0	0
Vacate	0	0	0	0

Construction is opening up, establishing drainage, and rocking old, overgrown spurs.

Improvement is brushing, re-establishing drainage, and patch rocking.

Closing is constructing impassible waterbars and digging a tank trap on a road that will not be used by ODF for probably 30 years. The road accesses private, but they do not maintain the road.

VII. AQUATIC RESOURCES AND WATER QUALITY:

Small Type N streams, which probably are mostly perennial, extend into the sale area. Twenty-five foot no-cut buffers (each side) will be left along the creeks.

VIII. T&E SPECIES CONSIDERATIONS:

T&E Birds: The SOA Wildlife Biologist has determined that the sale area is suitable habitat for Northern Spotted Owls due to the age and size of the trees. Surveys for NSO's have taken place in this area over several years and will continue in 2008. As a result of these surveys, 1 northern spotted owl site (Barber Creek) has been identified within 1.5 miles of this sale.

A preliminary Biological Assessment will be prepared by the ODF SOA Biologist to assure that the appropriate measures are taken to provide sufficient habitat on the landscape consistent with ODF's policy on Northern Spotted Owls.

Potential marbled murrelet habitat was surveyed according to protocol in 2007 and will be surveyed again in 2008 and 2009. The SW landing of the sale is within 1200 feet of the Bridge Creek MMMA.

T&E Plants: The sale area was checked against the Oregon Natural Heritage Program (OHNP) database of known listed plant locations. The sale area was also checked against district knowledge for any listed plant location. No listed plant records were identified within the sale area.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The sale area is steep with portions over 70% slope. The general area had debris flows in the 1996 storms. Road reconstruction, improvement, and vacation will not generate waste dirt and do not pose a threat to slope stability. Logging will be cable.

X. RECREATION RESOURCES:

The area is behind a private gate which is kept locked year around.

XI. CULTURAL RESOURCES:

No cultural resources sites are known to exist within the sale area.

XII. SCENIC RESOURCES:

The area is not visible from public roads or homes.

XIII. OTHER RESOURCE CONSIDERATIONS:

None known.

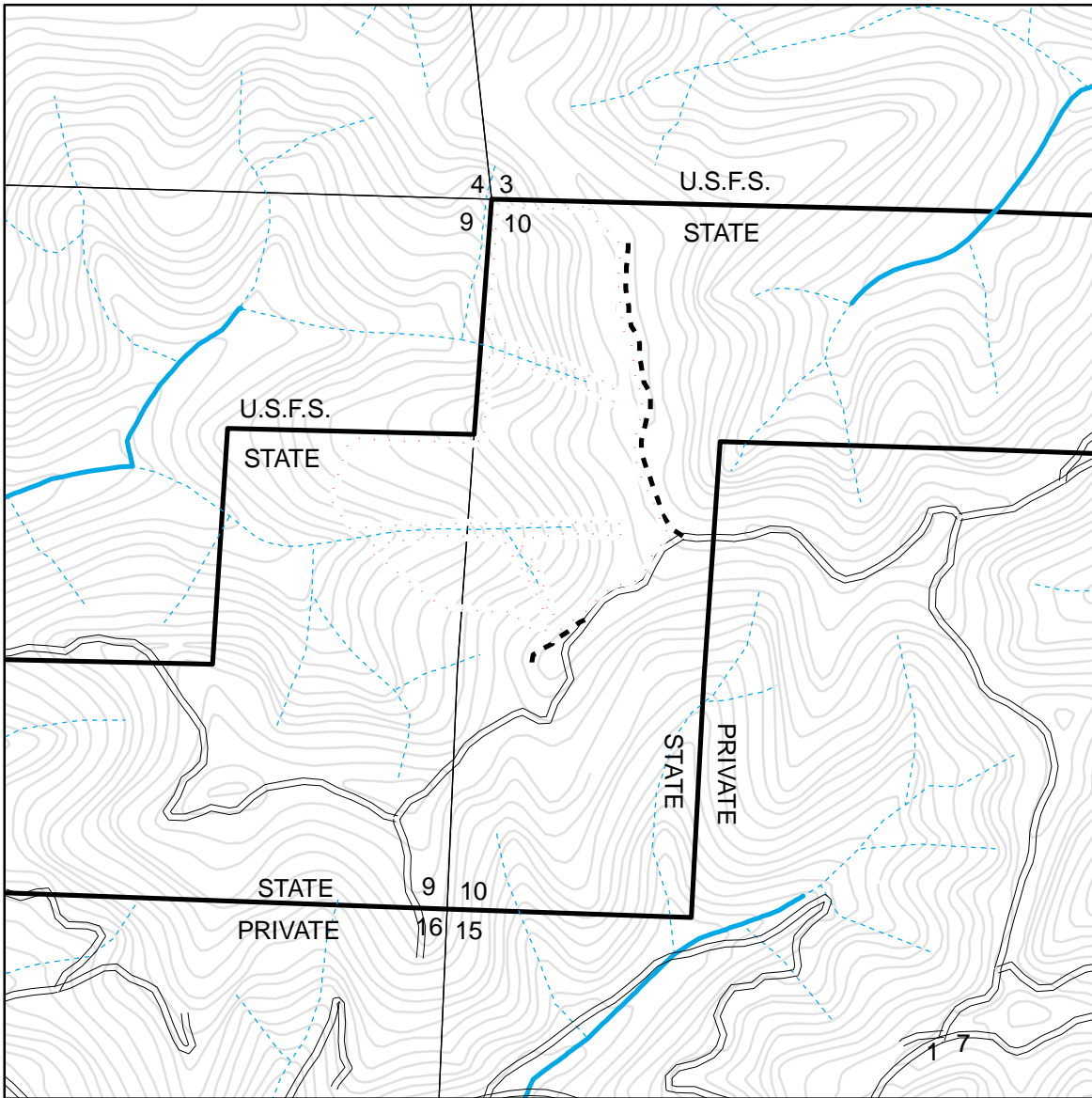
Western Lane District

Tunnel Selective

1/11/08

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2009 Pre-Operations Report



Legend

- · - · - Sale Boundary
- Existing Roads
- Planned Roads
- ODF Ownership
- Section Lines

Streams

FISHPRES

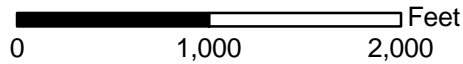
- Fish
- - - Nonfish
- · · Unknown

Tunnel Selective

Western Lane District - 2009 Annual Operations Plan

T.18S., R. 9W., Sec. 9 and 10, W.M.
Lane County, Oregon

3



Contour Interval : 40 Feet

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MEMORANDUM

TO: Art McCoy
FROM: Randy Smith
SUBJECT: Preliminary Biological Assessment for the **Tunnel Selective** Timber Sale
DATE: January 31, 2008

Executive Summary

Tunnel Selective is a proposed alternate sale in the 2009 Annual Operations Plan of the Western Lane District and is located within the home range of the Barber Creek northern spotted owl site.

The sale is 1.2 miles from the Barber Creek Activity Center (AC) and is a medium thinning impacting 34 acres of the 1.5 mile circle.

After harvest of the sale, 54% suitable habitat will remain post harvest within the 1.5 mile circle for the Barber Creek activity center. Suitable habitat will exceed the ITG.

No spotted owls have been observed within the sale area during protocol surveys.

No significant detections of marbled murrelets have been observed within this sale during first year protocol surveys in 2007. Second year surveys will be conducted in 2008.

As currently proposed, the Tunnel Selective timber sale is expected to have a low risk of negatively affecting the occupancy and productivity of the Barber Creek northern spotted owl site.

Introduction

Purpose

The Western Lane District is proposing the Tunnel Selective timber sale in their 2009 Annual Operations Plan. This sale area contains potentially suitable habitat for northern spotted owls. Portions of the sale are within the 1.5 mile circle for the Barber Creek northern spotted owl activity center. This memo presents the relevant biological information needed to assess the potential effects of the Tunnel Selective timber sale on northern spotted owls.

Policy Direction

Northern Spotted Owls

In the Western Lane District, the standard for protection of northern spotted owls, according to ODF policy (Holloway 2002), is to apply the U.S. Fish and Wildlife Service rescinded Incidental Take Guidelines (ITG) as outlined in "Procedures leading to Endangered Species Act compliance for the northern spotted owl" (U.S. Fish and Wildlife Service 1990). According to the ITG, the best available habitat is identified for a 70 acre core area; at least 500 acres of suitable habitat should be maintained within a 0.7 miles radius, and within the home range circle (in this case 1.5 miles), approximately 40% suitable habitat (1,906 acres) should be maintained. Additional factors to be considered and documented in this biological assessment include proximity of the operation to a site, the prescription proposed, the size of the operation, the history of activity near the site, and other relevant factors.

Marbled Murrelets

The sale area is approximately 18 miles from the Pacific Ocean. The sale and surrounding area is being surveyed for murrelets according to Pacific Seabird Group protocol (Evans et al., 2003). Surveys for murrelets were conducted in 2007 with a presence detection observed within the sale (1 audio) and presence and a significant detections occurring on Federal habitat to the North of the sale area. Second year surveys will be conducted in 2008 and after which, protection measures will be

established for occupied habitat. The nearest known occupied marbled murrelet site on ODF land, Bridge Creek MMMA, is approximately 0.2 miles southwest of the sale.

Background

Survey History and Site Information

Barber Creek

This pair site is currently being monitored by a PNW crew. In 2004, the historic pair nested in a new tree approximately 1 mile from the previous AC but failed to produce young. The historic female was present but did not nest in 2005. In 2006, a single response of unknown sex was heard at night. There were no responses in 2007.

Sale Area Information

The Tunnel Selective timber sale consists of 52 net acres of approximately 100 year-old second growth Douglas-fir and scattered big-leaf maple and alder that originated after fires near the turn of the century. The sale area is dominated by Douglas-fir with an average DBH of 21 inches and approximately 100 TPA. The riparian areas are primarily red alder and big-leaf maple and the considerable brush layer consists of vine maple, cherry, salal, and evergreen huckleberry. Stand Level Inventory (SLI) information collected on stands in the area show numerous snags exist, primarily in older decay classes. SLI data in the area also suggests the sale area likely has over 2,000 cubic feet per acre of existing down wood of which a majority is from past fire history and is in older decay classes. The entire sale is considered suitable habitat for northern spotted owls.

Prescription

The Tunnel Selective timber sale is a medium thinning totaling 52 net acres. The Pre-Operations Report states 42 net acres which is due to operational uncertainty of approximately 10 acres in the NW portion of the sale. For the analysis in this BA, I will assume that all 52 acres will be thinned. This harvest is designed to increase the growth of the largest trees, maintain crown lengths on the overstory trees, and encourage layering by giving more light to understory shade tolerant species. Stands in the sale are currently classified as understory (UDS) and the desired future condition of ODF ownership in this area is older forest structure (OFS). Approximately 40 of the largest Douglas-fir per acre will be retained as well as hemlock, cedar, chinquapin and big-leaf maple which are not safety hazards or operational impediments. Existing snags that are not safety hazards will also be retained. An additional 100 trees will be topped or girdled above the second whorl of live limbs for hard snag creation. For all areas, snags, and down wood will be left in the sale area consistent or exceeding the guidance in the Northwest Forest Management Plan. No suitable habitat outside the sale areas will be lost due to new road construction.

Assumptions

Defining the Home Range

According to "Procedures leading to Endangered Species Act compliance for the northern spotted owl" (USFWS 1990), the median home range size (based on 95% minimum convex polygon) for spotted owl pairs in the Oregon Coast Range is 4,766 acres, or the approximate equivalent of the area encompassed by a circle with a radius of 1.5 miles. Although spotted owls generally do not have circular home ranges, in the absence of more specific information about the home ranges of this site, I will assume that a 1.5 mile radius circle around the nest or activity center approximates the home range of this site. All stands for this analysis were digitized and circle radii/acreages were calculated using ArcMap 9.2 software.

Defining Suitable Habitat

Although spotted owl habitat has generally been described as old growth, spotted owls are known to use a variety of forest types in this part of the Oregon Coast Range. Spotted owls are known to nest

in stands as young as 60-80-years-old on state forest lands in the Western Lane District that have suitable nesting structures (33% of known nests on ODF lands in the District are located in stands in this age class) and to forage in even younger stands (Glenn and Anthony, 2000). For the purposes of this discussion, suitable spotted owl habitat is considered to be stands at least 55 years old from inventory data, younger stands that have known owl use, or stands that appear to be suitable habitat from structural inventory data or an assessment of aerial photographs (taken in 2005) and/or ground verification in 2007.

Impact Assessment and Discussion

Landscape Analysis

The following discussion assesses the habitat situation within the 1.5 mile circle of the Barber Creek spotted owl activity center, as recommended by the ITG (Table 1, Figure 1).

Barber Creek. The Tunnel Selective timber sale will partial cut 52 acres within the 1.5 mile circle for the Barber Creek spotted owl site. A habitat analysis of the Barber Creek spotted owl site indicates that there are approximately 2487 acres of state and federal suitable habitat within 1.5 miles of the activity center. If the sale area is removed, 2453 acres (54%) of suitable habitat are available within 1.5 miles of the activity center. Based on this preliminary habitat analysis, this site will maintain enough unmodified suitable habitat within the 1.5 mile circle after harvest to be consistent with the ITG.

Effects of the Prescription

Following completion of the modified partial cut, I do not anticipate the sale area will be immediately utilized by spotted owls in the short term. The thinning prescription and disturbance from harvest operations will temporarily result in a simplified understory and brush component in the sale area. The prescription will reduce the density of Douglas-fir within the stand increasing rate of stand growth and survival while promoting improved stand health and vigor over the longer term. A less dense and patchier, diverse stand will provide improved foraging habitat and accessibility for owls while still providing shelter and cover from predators. This prescription will promote growth and move the stand more quickly towards development of habitat elements important to spotted owls and prey species.

Discussion and Assessment of Other Relevant Factors

No spotted owls have been observed within the proposed sale areas during protocol surveys. The Tunnel Selective timber sale is 1.2 miles from the Barber Creek AC. Thirty four acres of the sale are within the 1.5 mile Barber Creek circle. These acres are located along the outer perimeter of the circle and do not appear to fragment suitable habitat. The Barber Creek spotted owl activity center is on USFS ownership and is located in a LSR. There has been a moderate amount of recent timber harvest activity within the Barber Creek circle, primarily north of the Siuslaw River on private ownership, however, much of the federal ownership appears to be administratively withdrawn lands and may not see harvest operations for some time. There remains a large contiguous block of habitat immediately surrounding the AC which is of high quality habitat and has excellent connectivity to remaining habitat within the circle. Within 1.5 miles of the Barber Creek activity center, federally managed land makes up 49% of the ownership, 9% is managed by ODF and 42% is in other ownership. The habitat analysis within 1.5 miles of this activity center indicates that the ITG will be met after harvest of the sale area.

Conclusions and Risk Assessment

Biological Risk

As currently proposed, the Tunnel Selective sale is expected to have a low risk of negatively affecting the occupancy and productivity of the Barber Creek spotted owl sites. This assessment is based on the following factors:

- ◆ The sale is located 1.2 miles from the activity center, along the outer edge of the 1.5 mile circle;
- ◆ Habitat quality and quantity immediately surrounding the activity center is high along with good connectivity to habitat elsewhere within the activity center;
- ◆ The moderate thinning portion of the sale will retain habitat elements important to spotted owls post-harvest and promote accelerated development of habitat elements in the future.
- ◆ Approximately 54% of the 1.5 mile circle will remain as unmodified suitable habitat after harvest of the sale, exceeding the ITG.

Compliance with Policy

After completion of harvest operations associated with the Tunnel Selective timber sale, the remaining suitable habitat within the Barber Creek owl circles will exceed the standards identified in the U.S. Fish and Wildlife Service rescinded Incidental Take Guidelines. Assessment of other relevant factors indicates this sale should pose a low risk of negatively impacting this owl site.

Consultation

Doug Cottam, District Wildlife Biologist with the Oregon Department of Fish and Wildlife, did not provide comments on this BA.

Literature Cited

Anonymous. 1991. Protocol for surveying proposed management activities that may impact northern spotted owls. Revised – March 17, 1992. 15 pp.

Evans Mack, D., W. P. Ritchie, S. K. Nelson, E. Kuo-Harrison, P. Harrison, and T. E. Hamer. 2003. Methods for surveying Marbled Murrelets in forests: a revised protocol for land management and research. The Pacific Seabird Group unpublished document available at <http://www.pacificseabirdgroup.org>. 80pp.

Glenn, E., and R. G. Anthony. 2000. Home Range and Habitat Use of Northern Spotted Owls on State Forest Lands in the Oregon Coast Range. Unpublished Final Report, Oregon Cooperative Fish and Wildlife Research Unit, Corvallis, OR. 114 pp.

Holloway, R. "State Forests Program Spotted Owl Strategies." ODF Internal Memorandum to Area Directors, District Foresters, Assistant District Foresters. September, 2002.

Kingfisher Ecological, Inc. 2007. Northern Spotted Owl Surveys Oregon State Lands 2007 for Oregon Department of Forestry. 139pp.

U.S. Fish & Wildlife Service. 1990. Procedures leading to endangered species compliance for the northern spotted owl. U.S. Fish and Wildlife Service, Region 1, July 1990. 15 pp.

cc: Dave Lorenz
Rob Nall
Marcia Humes
Greg Kreimeyer
Doug Cottam, ODFW

Table 1. Acres of suitable habitat on state and federal ownership within the 1.5 mile circle of the Barber Creek northern spotted owl activity center. Suitable habitat determined through 2005 air-photo analysis and 2007 field assessment.

	Acres	Barber Creek
		1.5 mi
Suitable Habitat:		
Federal		2216
State		271
Total		2487
Sale area	52	34
Suitable habitat removed due to new road construction within circles		0
Unmodified suitable habitat remaining		2453
% suitable post harvest		54%

Figure 1. Suitable habitat on state and federal lands within 1.5 miles of the Barber Creek spotted owl activity center relative to the Tunnel Selective timber sale.*

