

MEMORANDUM

TO: Art McCoy

FROM: Randy Smith

SUBJECT: Preliminary Biological Assessment for the **Windy Peak #4** Timber Sale

DATE: February 13, 2006

Purpose

Western Lane District is proposing the Windy Peak #4 timber sale in their 2007 Annual Operations Plan. This sale area contains potentially suitable habitat for northern spotted owls and marbled murrelets. The Windy Peak #4 sale is within 1.5 miles of three northern spotted owl activity centers; Rock Creek, Upper Greenleaf Creek and Bear Creek West. This memo presents the relevant biological information needed to assess the potential effects of the Windy Peak #4 timber sale on northern spotted owls and marbled murrelets.

Marbled Murrelets

The sale area is approximately 23 miles from the ocean. Surveys for marbled murrelets were conducted in 2005 and surveys will be continued in 2006, consistent with the survey protocol.

Northern Spotted Owls

Policy Direction

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of northern spotted owls, according to ODF policy (Holloway 2002), is to apply the U.S. Fish and Wildlife Service rescinded Incidental Take Guidelines (ITG) as outlined in "Procedures leading to Endangered Species Act compliance for the northern spotted owl" (U.S. Fish and Wildlife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), either 40% suitable habitat (1,808 acres) or 1,906 acres of suitable habitat 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.

Survey Information

The Windy Peak #4 timber sale was surveyed to protocol for northern spotted owls in 2004, 2005 and will be surveyed again in 2006, consistent with the survey protocol endorsed by the USFWS (Anonymous 1991). As a result of these and previous surveys in the area, three northern spotted owl activity centers have been located within 1.5 miles of the sale area. The Rock Creek site is located on BLM land approximately 1.1 miles from the Windy Peak #4 timber sale. The Upper Greenleaf Creek site is located on BLM land approximately 0.3 miles from the sale area. The Bear Creek West site is located on BLM land approximately 0.6 miles from the sale area. No spotted owls have been observed in within the sale area.

Site History

Rock Creek

In 2000, the historic pair nested and fledged two young. The historic male was found with a female in 2001 whose species was in question. They did not produce young. There was no response in 2002. The historic male was found late in the season in 2003. There was no

response in 2004. In 2005, a male was heard early in the season and a female was heard twice at night.

Upper Greenleaf Creek

A male was detected at this site in 2001. There was no response in 2002 or 2003. In 2004, the male from Rock Creek nested with an un-banded female and fledged one juvenile at this site. The historic male was found twice in 2005 and did not appear to be nesting. Later in the season, he was found at the Rock Creek site.

Bear Creek West

A pair nested and fledged one juvenile at this site in 2000. They did not nest in 2001. In 2002, they nested in a new area and fledged one young. The pair was non-nesting in 2003. In 2004, they nested in a new tree and fledged two young. The pair did not nest in 2005.

Habitat Information

The Windy Peak #4 sale consists of 155 acres of 70 to 105 year old second growth Douglas-fir and hardwood stands that regenerated after historic fire events. Even though the Douglas-fir overstory is made up of varying ages, it is primarily a single species, homogeneous overstory with limited vertical diversity. The understory is composed of various typical coast range shrub species with minor amounts of hemlock and cedar. Average conifer DBH ranges from 17-25 inches within the sale area. Considerable numbers of snags and down wood are present within the sale area. I have been to all areas associated with this sale and consider the entire sale area to be suitable habitat for northern spotted owls.

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 ranges of these sites.

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 (38% of known nests on ODF lands in the District are located in stands in this age class) and to forage in even younger stands.

For the purposes of this discussion, suitable spotted owl habitat is considered to be stands at least 55 years old, younger stands that have known owl use, or stands that appear to be suitable habitat from inventory data, an assessment of aerial photographs (taken in 2004) and/or ground verification in 2005.

There are two sales on state lands within the Upper Greenleaf Creek home range circle that are pending commencement of harvest activities. The Beaver's Revenge timber sale is an approved sale in the 2005 operations plan that will partial cut 43 acres of suitable habitat within 1.5 miles of the Upper Greenleaf Creek spotted owl site. The Green Reach timber sale is an approved sale in the 2006 operations plan that will clear cut 144 acres of suitable habitat within 1.5 miles of the Upper Greenleaf Creek spotted owl site. Of these 144 sale acres, 40 are within the 0.7 mile Upper Greenleaf Creek circle. Although currently suitable, these acres were not included in the available suitable habitat for this analysis and are therefore not reflected in Table 1.

Landscape condition

The following discussion assesses the habitat situation within 0.7 and 1.5 miles of the Rock Creek, Upper Greenleaf Creek and Bear Creek West spotted owl activity centers, as recommended by the ITG (Table 1, Figure 1).

The Windy Peak #4 timber sale will thin 70 acres within the 1.5 mile circle for the Rock Creek spotted owl site. This sale does not affect the 0.7 mile circle. A habitat analysis of the Rock Creek spotted owl site indicates that there are currently 2,603 acres of suitable habitat within 1.5 miles of the activity center. If the sale area is excluded from the suitable habitat, 2,533 acres (56%) 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.

The Windy Peak #4 timber sale will thin 49 acres and clear cut 27 acres for a total of 76 acres within the 0.7 mile circle for the Upper Greenleaf Creek spotted owl site. A habitat analysis of the Upper Greenleaf Creek spotted owl site indicates that there are currently 767 acres of suitable habitat within 0.7 miles of the activity center. If the sale area is excluded from the suitable habitat, 691 acres (71%) of suitable habitat are available within 0.7 miles of the activity center. There are 3,154 acres of suitable habitat within 1.5 miles of the activity center. The Windy Peak #4 timber sale will thin 128 acres and clearcut 27 acres for a total of 155 acres within the 1.5 mile circle. If the sale area is excluded from the suitable habitat, 2,999 acres (67%) 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 0.7 mile and 1.5 mile circle after harvest to be consistent with the ITG.

The Windy Peak #4 timber sale will thin 37 acres within the 0.7 mile circle for the Bear Creek West spotted owl site. A habitat analysis of the Bear Creek West spotted owl site indicates that there are currently 874 acres of suitable habitat within 0.7 miles of the activity center. If the sale area is excluded from the suitable habitat, 837 acres (85%) of suitable habitat are available within 0.7 miles of the activity center. There are 3,245 acres of suitable habitat within 1.5 miles of the activity center. The Windy Peak #4 timber sale will thin 42 acres and clearcut 7 acres for a total of 49 acres within the 1.5 mile circle. If the sale area is excluded from the suitable habitat, 3,196 acres (71%) 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 0.7 mile and 1.5 mile circle after harvest to be consistent with the ITG.

Sale Prescription

The desired future condition for these stands is older forest structure (OFS). The Windy Peak #4 timber sale is composed of 128 acres of thinning to a RD of 20-30 and 27 acres of clearcut harvest in a hardwood stand for a total of 155 acres in the sale plan. Areas 1 and 4 will be thinned to a RD of 20 removing Douglas-fir from across the middle diameter classes and leaving trees less than 8 inches DBH and those greater than 26 inches DBH. All minor conifer and hardwoods not a safety hazard will be retained to promote layering. The thinning is designed to improve species diversity and increase future layering by adding a new cohort of mixed conifer species beneath the Douglas-fir dominated over story. After thinning, these stands are expected to grow into OFS in less than 50 years. Areas 2 and 3 will also be thinned similar to Areas 1 and 4; however, the upper diameter limit will be 30 inches DBH and will have a post harvest RD of 30. Big leaf maple currently creates most of the layering but few understory hemlock and cedar exist. These stands began at low densities and therefore have longer crowns than would be expected for their age. Thinning in these areas can benefit spotted owl habitat over the long term and may take a number of years to return to suitability. It is anticipated that after thinning, these stands will grow into OFS within a couple of decades. Area 5 will receive a modified clear

cut prescription which will remove a majority of the hardwoods (Red alder) and retain all existing clumped and scattered conifers which is estimated at approximately 30 trees per acre. This area will likely take some time to return to suitable habitat but will be placed on a trajectory towards older forest structure. The area will be planted with a mixture of conifer species and natural seeding of hardwoods and stump sprouts will provide future canopy layering. Green trees, snags, and down wood will be left or created in the sale area consistent with the guidance in the Northwest Forest Management Plan. There will be no new road construction associated with this sale.

Assessment

The Rock Creek spotted owl site is approximately 1.1 miles from the proposed Windy Peak #4 timber sale. Approximately 70 acres of the sale are within 1.5 miles of the activity center. This sale does not affect the 0.7 mile circle. The Rock Creek owl activity center is on BLM land and is located in Administratively Withdrawn lands. Federally managed land makes up 78% of the area within 1.5 miles of the spotted owl activity center, 10% is managed by ODF and 12% is managed by other landowners. The preliminary habitat analysis of this site indicates that the ITG will be met within 1.5 miles of the activity center after harvest of the sale area.

The Upper Greenleaf Creek spotted owl site is 0.3 miles from the proposed Windy Peak #4 timber sale. A majority of harvest operations should not be visible from the activity center due to the location of the activity center near the bottom of a draw, a prominent ridgeline and older forest that separates the sale and the activity center. The quantity and quality habitat that exists around the activity center is very good and likely provides a good core area for this site. The majority of the suitable nesting and roosting habitat around the current activity center is located on federal ownership with state ownership currently providing foraging habitat. I believe that the core area for this pair would likely reside on federal ownership as it provides a large block of very good nesting and roosting habitat. Approximately 76 acres of the sale are within 0.7 miles of the activity center and 155 acres of the sale are within 1.5 miles of the activity center. The Upper Greenleaf Creek owl activity center is on BLM land and is located in Administratively Withdrawn lands. Federally managed land makes up 65% of the area within 1.5 miles of the spotted owl activity center, 34% is managed by ODF and <1% is managed by other landowners. The habitat analysis of this site indicates that the ITG will be met within 0.7 and 1.5 miles of the activity center after harvest of the sale area.

The Bear Creek West spotted owl site is 0.6 miles from the proposed Windy Peak #4 timber sale. Approximately 37 acres of the sale are within 0.7 miles of the activity center and 49 acres of the sale are within 1.5 miles of the activity center. The Bear Creek West owl activity center is on BLM land and is located in Administratively Withdrawn lands. Federally managed land makes up 82% of the area within 1.5 miles of the spotted owl activity center, 13% is managed by ODF and 5% is managed by other landowners. The habitat analysis of this site indicates that the ITG will be met within 0.7 and 1.5 miles of the activity center after harvest of the sale area.

Risk Assessment

The Windy Peak #4 timber sale includes 155 acres of thinning and clearcut in second growth Douglas-fir and mixed conifer/hardwood stands consisting of Douglas-fir, hemlock, cedar, bigleaf maple and red alder. This activity will take place within 1.5 miles of the Rock Creek, Upper Greenleaf Creek and Bear Creek West activity centers and some activity will take place within 0.7 miles of the Upper Greenleaf and Bear Creek West activity centers.

I believe the Windy Peak #4 sale as currently planned will have a low risk of negatively affecting the occupancy and productivity of the Rock Creek and Bear Creek West spotted owl pairs. In considering the type of operation and the proximity of the sale to the Upper Greenleaf Creek activity center, I would normally lean towards a moderate risk for this owl pair. However, after considering several additional factors outlined below, I believe that the risk to the Upper

Greenleaf Creek activity center will also be low. This assessment is based on the following factors:

Rock Creek:

- ♦ The sale is located 1.1 miles from the Rock Creek activity center;
- ♦ The 70 acres of thinning are along the outer edge of the 1.5 mile circle;
- ♦ Approximately 56% of the 1.5 mile circle will remain as unmodified suitable habitat after harvest of the sale, exceeding the ITG.

Upper Greenleaf Creek:

- ♦ Approximately 71% of the 0.7 mile circle and 67% of the 1.5 mile circle will remain as unmodified suitable habitat after harvest of the sale, exceeding the ITG;
- ♦ 99% of the lands within the 1.5 mile circle are state and federal ownership and the federal lands are classified as Administratively Withdrawn where little or no harvest activity is planned;
- ♦ Although the sale is 0.3 miles from the activity center, a ridgeline separates the activity center from a majority of harvest operations and most of the activity will not be within line of sight;
- ♦ Very good amounts of contiguous, high quality habitat exist between the harvest area and the activity center.

Bear Creek West:

- ♦ Approximately 85% of the 0.7 mile circle and 71% of the 1.5 mile circle will remain as unmodified suitable habitat after harvest of the sale, exceeding the ITG;
- ♦ Very good amounts of high quality habitat exist between the harvest area and the activity center.

Long Term Benefits:

I believe that this sale prescription will have positive long-term benefits to spotted owls. These stands are being placed on a trajectory for older forest structure. The thinning prescription is designed to promote layering and increase vertical diversity while retaining the largest trees and snags to provide future nesting and roosting habitat. The thinned stands area expected to develop more rapidly than if left in an unmanaged state. The modified clear cut prescription area will promote layering by opening the stand with removal of hardwoods while retaining the conifer patches and individual scattered trees. A new cohort of mixed conifer species will provide future vertical layering, habitat for prey species and residual conifer trees to provide future nesting and roosting habitat.

Recommendations:

Due to the proximity of the sale area and potential disturbance issues to the current Upper Greenleaf Creek activity center, I believe it may be wise not to conduct harvest operations in sale Areas 4 and 5 during the seasonally restricted period for nesting which is March 1 – September 30. If surveys for that year have documented the pair to be non-nesting, harvest operations may proceed until the next survey season.

NSO surveys will be conducted through the life of the timber sale. If the activity center were to move closer to the sale area (within 0.25 miles) seasonal restrictions will be required.

Literature Cited

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

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.

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: Tom Mickel
Rick Rogers
Marcia Humes
Rob Nall

Table 1. Acres of suitable habitat on State and Federal ownership within the 0.7 and 1.5 mile circles of Rock Creek, Upper Greenleaf Creek and Bear Creek West northern spotted owl activity centers. Suitable habitat determined from inventory data, 2004 air-photo analysis and a 2005 field assessment.

	Acres	Rock Creek	Upper Greenleaf Creek		Bear Creek West	
			0.7	1.5	0.7	1.5
		1.5	0.7	1.5	0.7	1.5
State and Federal Suitable habitat		2603	767	3154	874	3245
Sale area	155	70	76	155	37	49
Suitable habitat removed due to new road construction within circles		0	0	0	0	0
Unmodified suitable habitat remaining		2533	691	2999	837	3196
% suitable post harvest		56%	71%	67%	85%	71%