

# MEMORANDUM

TO: Chris Rudd

FROM: Randy Smith

SUBJECT: Preliminary Biological Assessment for **London Beary** Timber Sale

DATE: January 31, 2006

## Purpose

London Beary is a proposed sale in the Southwest Oregon District 2007 Annual Operations Plan. The London Beary sale is within 1.3 miles of two northern spotted owl activity centers, Malone Peak and Tanked Wolf. This memo presents the relevant biological information needed to assess the potential effects of this thinning sale on northern spotted owls. This sale is outside of the known inland range of the marbled murrelet (>50 miles from the ocean).

## Policy Direction

In the Southwest Oregon 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of northern spotted owls, according to ODF policy (Holloway 2002), is to apply the U.S. Fish and Wildlife Service rescinded Incidental Take Guidelines (ITG) as outlined in "Procedures leading to Endangered Species Act compliance for the northern spotted owl" (U.S. Fish and Wildlife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 mile radius and within the home range circle (in this province .3 miles), approximately 40% suitable habitat (1,336 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 management activity near the site, and other relevant factors.

## Survey Information

The London Beary 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 U.S. Fish and Wildlife Service (Anonymous 1991). As a result of these and previous surveys in the area, two northern spotted owl activity centers have been identified within 1.3 miles of the sale. The Malone Peak site is located on BLM land approximately 0.3 miles from the sale. The Tanked Wolf site is located on BLM land 1.0 miles from the sale.

## Site History

### *Malone Peak*

In 2002 and 2003, a pair was present at this site but they did not nest. There was no response at this site in 2004. A single male night response was detected in 2005.

### *Tanked Wolf*

In 2002, a non-nesting pair was found at this site. The historic pair was found non-nesting in 2003, 2004 and 2005.

## Habitat Information

The London Beary timber sale consists of 90 acres of 40-50 year old Douglas-fir, ponderosa pine and mixed hardwood stands with an average DBH of 10-12 inches and a range of 200-370 TPA. There are larger Douglas-fir, ponderosa pine and madrone scattered throughout the sale area.

Approximately 2-3 snags per acre >12 inches DBH are present in the sale area. The amount of large down wood is estimated to be 700-1700 cu. ft. per acre in decay classes 1-5. I have visited this sale and my assessment is that the sale area likely contains marginal habitat for spotted owls. This assessment is based on dense, uneven stocking levels, smaller average stand diameter and minimal amounts of residual trees, snags, and down wood habitat.

#### *Defining the home range*

We do not have specific information about the home ranges of the northern spotted owl sites affecting this thinning sale. According to "Procedures leading to Endangered Species Act compliance for the northern spotted owl" (U.S. Fish and Wildlife Service 1990), the median home range size for spotted owl pairs in the Klamath Province is 3,340 acres, or the equivalent of the area encompassed by a circle with a radius of 1.3 miles. Although spotted owls generally do not have circular home ranges, in the absence of more specific information about the home ranges of these sites, I will assume that a 1.3 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 Klamath province. The home ranges of spotted owls in this region contain large percentages of stands in intermediate stages of stand development (Anthony and Wagner 1999). Spotted owls are known to nest in stands as young as 60-80 years old that have suitable structures on state forest lands in the Southwest Oregon District (40% of known nests on ODF lands in the District are in this age class) and to forage in even younger stands.

A complicating factor in identifying suitable spotted owl habitat on this District is the land ownership pattern. The area around the Malone Peak and Tanked Wolf spotted owl sites includes lands managed by federal, state, private industrial and private non-industrial landowners. Because specific stand data on private and federal ownership was not available for our use, this assessment of habitat quality within the Malone Peak and Tanked Wolf home range circles is based on aerial photos. Determination of habitat status within the owl circles was done by 2004 series air photo analysis and 2005 field assessments.

#### Landscape Condition

The following discussion assesses the habitat situation within 0.7 and 1.3 miles of the Malone Peak and Tanked Wolf spotted owl activity centers, as recommended by the ITG (Table 1, Figure 1).

The London Beary timber sale will thin 59 acres within the 0.7 mile circle for the Malone Peak spotted owl site. A habitat analysis of the Malone Peak spotted owl site indicates that there are currently 700 acres of suitable habitat within 0.7 miles of the activity center. If the sale area is excluded from the suitable habitat, 641 acres (65%) of suitable habitat are available within 0.7 miles of the activity center. The London Beary timber sale will thin 90 acres within the 1.3 mile circle for the Malone Peak spotted owl site. A habitat analysis of the Malone Peak spotted owl site indicates that there are currently 2,403 acres of suitable habitat within 1.3 miles of the activity center. If the sale area is excluded from the suitable habitat, 2,313 acres (68%) of suitable habitat are available within 1.3 miles of the activity center. Based on this preliminary habitat analysis, this site will maintain enough unmodified suitable habitat within the 0.7 and 1.3 mile circles after harvest to be consistent with the ITG.

The London Beary timber sale will thin 52 acres within the 1.3 mile circle for the Tanked Wolf spotted owl site. A habitat analysis of the Tanked Wolf spotted owl site indicates that there are currently 2,453 acres of suitable habitat within 1.3 miles of the activity center. If the sale area is

excluded from the suitable habitat, 2,401 acres (71%) of suitable habitat are available within 1.3 miles of the activity center. Based on this preliminary habitat analysis, this site will maintain enough unmodified suitable habitat within the 1.3 mile circle after harvest to be consistent with the ITG.

#### Sale Prescription

The prescription for the London Beary timber sale is a thinning to a SDI of 25-35%. The prescription will primarily be thinning across diameter classes to remove the suppressed, intermediate and some co-dominant trees from these overstocked Closed Single Canopy structure stands. Hardwood patches will be thinned and interplanted with conifer species to promote layering and greater species diversity. Some of the healthy advanced understory will be reserved to promote layering. Approximately 10% of the sale area will remain in un-thinned patches at least 1 acre in size. In addition, opportunities to create small ¼ to 1 acre patch cuts throughout the sale will be explored during sale layout with the Area Biologist for added diversity. All minor conifer and most hardwood species will be reserved from cutting. Trees greater than 28 inches DBH will be reserved from cutting unless they are a safety hazard. This will preserve the largest and healthiest trees in the stands. The basal area target and upper diameter limit will preserve the diversity of these stands while permitting density management for increased growth and development of the understory and overstory. Thinning these stands will increase the health and vigor of the residual hardwood and conifer as well as reduce the likelihood of insect damage, disease, wildfire, windthrow, or other stand replacing event. An estimated 1 to 1.5 snags per acre will occur as a result of logging and natural mortality. An additional 1 snag per 2 acres will be created. All snags that are not safety or fire hazards will be reserved. Any snags that are felled will be retained as down wood. Approximately 100 cu. ft. /acre of class 1 down wood will be added through normal logging operations including trees that are damaged and eventually blow down and cull log segments required to be left on the ground. No yarding of down wood will be permitted. Most open patches >1/2 acre will be under planted with a combination of Douglas-fir, ponderosa pine and sugar pine. Smaller patches will be left to naturally regenerate.

#### Assessment

The Malone Peak spotted owl site is approximately 0.3 miles from the proposed London Beary timber sale and is separated by a prominent ridge. Approximately 59 acres of the sale are within 0.7 miles and 90 acres are within 1.3 miles of the activity center. The Malone Peak owl activity center is on BLM land and is located in a LSR. Federally managed land makes up 42% of the area within 1.3 miles of the spotted owl activity center, 14% is managed by ODF and 44% is managed by other landowners. The habitat analysis of this site indicates that the ITG will be met within 0.7 and 1.3 miles of the activity center after harvest of the sale area.

The Tanked Wolf spotted owl site is 1.0 miles from the proposed London Beary timber sale. Approximately 52 acres of the sale are within 1.3 miles of the activity center. This sale does not affect the 0.7 mile circle. The Tanked Wolf owl activity center is on BLM land and is not located in a LSR. Federally managed land makes up 42% of the area within 1.3 miles of the spotted owl activity center, 4% is managed by ODF and 54% is managed by other landowners. The habitat analysis of this site indicates that the ITG will be met within 1.3 miles of the activity center after harvest of the sale area.

#### Risk Assessment

The London Beary timber sale includes 90 acres of thinning in mixed conifer/hardwood stands consisting of Douglas-fir, ponderosa pine and pacific madrone. This activity will take place within 1.3 miles of the Malone Peak and Tanked Wolf activity centers and some activity will take place within 0.7 miles of the Malone Peak activity center.

I believe the London Beary sale as currently planned will have a low risk of negatively affecting the occupancy and productivity of the Malone Peak and Tanked Wolf spotted owl pairs. This assessment is based on the following factors:

Malone Peak:

- ◆ Approximately 65% of the 0.7 mile circle and 68% of the 1.3 mile circle will remain as unmodified suitable habitat after harvest of the sale, exceeding the ITG;
- ◆ The proposed sale prescription is a moderate thinning that will retain habitat elements and enhance future development of habitat important to northern spotted owls.

Tanked Wolf:

- ◆ The sale is located 1.0 miles from the Tanked Wolf activity center;
- ◆ Approximately 71% of the 1.3 mile circle will remain as unmodified suitable habitat after harvest of the sale, exceeding the ITG;
- ◆ The proposed sale prescription is a moderate thinning that will retain habitat elements and enhance future development of habitat important to northern spotted owls.

Although the proposed sale is within 0.3 miles of the Malone Peak site, I believe the risk of the sale would be low for several reasons. A prominent ridge separates the sale area from the Malone Peak site, there will be sufficient, quality habitat available within both the 0.7 and 1.3 mile circles after harvest which will exceed the ITG and that the prescription is a thinning which will retain and enhance habitat elements important to owls into the future.

Literature Cited

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

Anthony, R.G., F.F. Wagner 1999. Reanalysis of northern spotted owl habitat use on the Miller Mountain study area. Report to the Bureau of Land Management, Medford District, October 1999. 71 pp.

Holloway, R. "Northern Spotted Owl Management Measures." ODF Internal Memorandum to Area Directors, District Foresters, Assistant District Foresters. October 23, 2000.

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: Marcia Humes  
Dan Thorpe  
Rob Nall

Table 1. Acres of suitable habitat within 0.7 and 1.3 mile circles of Malone Peak and Tanked Wolf northern spotted owl activity centers. Suitable habitat was determined through 2004 air-photo analysis and 2005 field assessment.

	<b>Acres</b>	<b>Malone Peak</b>		<b>Tanked Wolf</b>
		<b>0.7</b>	<b>1.3</b>	<b>1.3</b>
<b>Suitable Habitat</b>				
<b>State</b>		217	397	124
<b>Federal</b>		343	1033	1119
<b>Private</b>		140	973	1210
<b>Total</b>		700	2403	2453
<b>Sale area</b>	90	59	90	52
<b>Acres removed for road construction</b>		0	0	0
<b>Unmodified suitable habitat remaining</b>		641	2313	2401
<b>% suitable remaining post harvest</b>		65%	68%	71%