

Pre-Operations Report 2010 Sale

Operation Name: Exit 80 Thin

County: Douglas County

Management Basin: Umpqua

Table 1. Operation Areas, Types and Acres

Area	Harvest Type	Gross Acres	Net Acres
1	Thinning	83	80
Total	Thinning	83	80

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The operation is on the east side of the freeway from I-5 exit 80 near Glendale approximately 300 feet from the onramp. The Common School Fund property is an isolated tract surrounded by Bureau of Land Management lands and private lands. The tract goes uphill from the freeway to the ridge encompassing an 83 acre strip ¼ mile wide by ½ mile long. At the ridge top there are two knobs where landings will be placed along with another landing midway up the property on the north boundary. Slopes face west towards the freeway up to the knob. Elevation for the sale area ranges from 1,500 feet to 2,400 feet. The backside of the sale faces east on the upper portion of the sale. Slopes are 15-35% in the lower slopes and approach 55-60% in the upper portions of the sale.

Soils in the sale area are primarily the Beekman-Vermisa (19G) complex. It occurs on the upper slopes (60-90%) and comprises about 40% of the sale area. Soils of this type are shallow to moderately deep, well drained or somewhat excessively drained. Fires of moderate intensity in this type may increase the risk of erosion and soil damage.

Present in the middle slopes is the Josephine-Speaker (117F) complex. It is present in 29% of the sale area and occurs on 30-60% south slopes. This soil unit is moderately deep and well drained. Seedling mortality is a concern for this type. Both of these soil types are susceptible to windthrow during periods of strong winds when the soil is saturated.

Also present in the lower slope are Dumont Gravelly Loam soils. It comprises 17% of the sale area. This soil unit is moderately deep, well drained, and may be susceptible to water erosion.

II. CURRENT STAND CONDITION:

Overstory: The overstory is primarily Douglas-fir. The lower and middle portions have some grand-fir, pine, and cedar. Hardwoods vary in size, some reaching to the overstory and others filling the understory.

Understory: Generally hardwoods.

Snags: All three types are lacking in snags, especially larger hard snags. The middle and lower portions of the sale would benefit most from snag creation.

Stand	Snags per acre 24"+	(SPA) 12"+	Class 1 and 2 large 15"+
5222	1	2	0
5223	0.5	6	3.5
5224	0.3	0.3	0

Down woody debris: These stands would benefit from some new down logs.

Stand	Decay class 1 and 2 Cubic Feet per Acre	Total Cubic Feet per acre	Logs per Acre Class 1 and 2 24" Large end
5222	55	578	0
5223	562	576	4.5
5224	403	250	0

Current Stand Structure: Table 3 displays the stand structure information. The stand is currently in understory development (UDS) and closed single canopy (CSC). Treating the stand will shift it into UDS and eventually layered and old forest structure over time.

Insects and disease: This area does not have a high occurrence of forest pathogens of concern. Root rots including laminated root rot (*Phellinus weirii*) are not a significant problem. The climate is too dry for Swiss needlecast (*Phaeocryptopus gaeumanni*) to be a concern. There is some occurrence of the fir engraver (*Scolytus ventralis*) in true firs in this area. True firs are not a significant component of these stands and thinning them will reduce the susceptibility to fir engravers. Sugar pine, if planted, may become infected with white pine blister rust (*Cronartium ribicola*).

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age 2010	DBH	BA	TPA	SDI	Acres ²
1	Thin	5222	Douglas-fir	85	14	134	127	36	28
		5222	PP, IC, WF	85	19	24	15	6	28
		5222	Madrone		9	54	134	18	28
		5222	Target (Cnfr)	85	16	140	180	40	28
	Thin	5223	Doug-fir	113	23	171	62	36	13
		5223	Madrone		11	74	108	22	13
		5223	Target (DF)		25	160	40	27	13
	Thin	5224	Douglas-fir	104	16	184	128	46	39
		5224	Madrone		9	48	109	16	39
		5224	Target (DF)		16	140	100	35	39

¹The source of stand inventory information is SLI from 2003

²The net acres are based on GIS and exclude roads, streams buffers, reserve areas, etc.

³The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED FUTURE CONDITION/VISION:

The purpose of the following stand management treatments is to reduce moisture stress and competition lowering the risk presented by disease and wildfire, and to raise revenue for the Counties by removing a small amount of timber. Thinning will help reduce interspecies competition and stress on the trees helping to prevent beetle outbreaks and disease. Removing some of the ladder fuels will help prevent fire from reaching the canopies and killing the dominant overstory trees.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres (net)
1	5222	UDS	UDS	LYR	28
	5223	UDS	UDS	OFS	13
	5224	CSC	UDS	LYR	39

¹ The stand is expected to develop into this condition in the five to ten years after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

Over the 83 acre piece of property there is quite a bit of variability in the forest. There are three distinct forest types. The upper portion from the ridgetop facing east (type 5224) is a stand of large overstory Douglas-fir timber with a densely stocked codominant and suppressed class of trees that will be thinned, leaving the larger size class. From the ridgetop down, facing west, to the mid point of the sale (type 5223), is a different stand type that has scattered large Douglas-fir, codominants, and suppressed trees, with a scattering of minor species conifer and hardwoods. This area will be selectively thinned to reduce the density and competition between trees. The lower portion (type 5222) of the sale is flatter and has a significant component of madrone

scattered among the conifer. This area will also be thinned to reduce the density of the stand.

Desired Silvicultural Results: The commercial prescription will primarily be a basal area thinning from below to remove the suppressed, intermediate and some of the codominant trees from these stands. Some of the healthy advanced understory will be reserved to promote layering. An upper diameter limit will be established to preserve the largest and healthiest trees in the stands. Density management will increase growth and development of the overstory and understory. Thinning these stands will increase the health and vigor of the residual conifer and hardwood trees as well as reduce the likelihood of insects, disease, wildfire, or other stand replacing events. Approximately 2-5% of the sale area will remain in unthinned patches at least 1 acre in size due to limitations in logging capabilities. The largest and healthiest trees will be left throughout the sale, as well as any trees that have the Old Growth characteristics of rough bark, large limbs and deformed tops. Hardwood trees or patches will be thinned to create growing space for conifers and to improve the health and vigor of the larger residual hardwoods. Opportunities to create small ¼ to one acre openings will be explored during sale layout. These patch cuts provide an opportunity to leave extra down wood. Openings with insufficient natural seeding will be planted with conifer. This combination of partial cutting and group selection emulates the natural processes behind the development of LYR and OFS stands.

Snags: Snag creation will be required. An estimated 1 to 1.5 snags per acre will occur as a result of logging and natural mortality. The sale area will be assessed after logging to determine the amount of snags to create. It is likely that an additional 1 snag per 2 acres will be created by tree topping or girdling the top. All pre-existing snags that are not safety or fire hazards will be retained. Any snags that are felled will be retained for down woody debris.

Down woody debris: Approximately 100 cu. ft. per acre of class 1 debris 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. Additionally any time a stand is opened up from management activities the possibility of isolated blow down or top breakage exists.

Insects and disease: The sale will focus on removing the trees that have the smaller, less developed crowns, poor vigor and thus are more susceptible to insects and disease.

Fuels Modification: Residual slash, tree tops and limbs, will be burned if unacceptable accumulations remain after harvest.

Regeneration: Regeneration from seed will occur naturally as a result of the thinning, especially in group selection areas.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
0%	100%		X
Planned Quarter:		4th	

	Conifer	Hardwood	Total
Net Volume (MBF)	500	20	520
Stumpage Value (\$/MBF)	\$150	\$50	
Estimated Gross Value	\$75,000	\$1000	\$76,000
		Project Costs:	\$20,000
		Estimated Net Value:	\$56,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

Access will be through BLM and private roads to the east of the sale along the ridge. The best location for harvesting the upper portions of the sale are at the two ridge top knobs. These can be accessed from the south through private ground. The lower portion of the sale will be accessed at the midpoint of the north boundary through a private road. This road will need improvement at a stream crossing on a BLM portion of the road where a sinkhole has developed. ODF is working in conjunction with the BLM and a private landowner to fix this section of road. The upper portions of the sale will have to be cable yarded. The entire sale can be logged from the upper ridge knobs, but the corridors will be long. A road into the lower section from the north will allow the lower portion to be cable yarded to the north of the sale allowing for shorter corridors to the ridge knobs. The lower portions of the sale are on slopes of 15-35%, ideal for ground-based logging equipment. The logger may choose to swing these logs uphill to the landing or to a collection point where they can be cable yarded to the top. The lower portion of the sale has a road to the freeway offramp. This road may be used for access, but will not likely be a haul route.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct				0.5
Improve				1.0
Block (Closed)				
Vacate				

VII. AQUATIC RESOURCES AND WATER QUALITY:

In the lower part of the unit, there is one main draw that is a seasonal stream. This stream will be buffered according to the Southwest Oregon Forest Management Plan riparian strategies. Equipment will be excluded from the streambank zone (within 25' of the channel) of small seasonal Type N streams to maintain the integrity of the stream channel.

VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

Northern Spotted Owl: The SOA Wildlife Biologist has determined that the sale is suitable for Northern Spotted Owls due to the age and size of the trees. Surveys for NSO's have taken place over several years and will continue in 2009. As a result of these surveys, 1 northern spotted owl site has been identified within 1.3 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. Seasonal restrictions may be necessary to prevent disturbance during the nesting season.

Marbled Murrelet: This sale is outside the known inland range of the marbled murrelet and will not require surveys.

Threatened and Endangered Fish: There are no fish-bearing streams in the sale area.

Threatened and Endangered Plants: The sale area was checked against District knowledge for any listed plant location as well as the Oregon Natural Heritage Program (ONHP) database of known listed plant locations.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

A hazard assessment of slope stability is conducted by a Geotechnical Specialist if there are any issues with structures downstream of the sale. This sale does not have any structures downstream. There are no high landslide hazard locations within the sale.

X. RECREATION RESOURCES:

There are no developed trails or facilities in close proximity to the sale.

XI. CULTURAL RESOURCES:

The sale area was checked against a cultural resources database and maps. The sale area is not likely to have cultural resources. During sale preparation, the sale area will be reviewed for cultural artifacts.

XII. SCENIC RESOURCES:

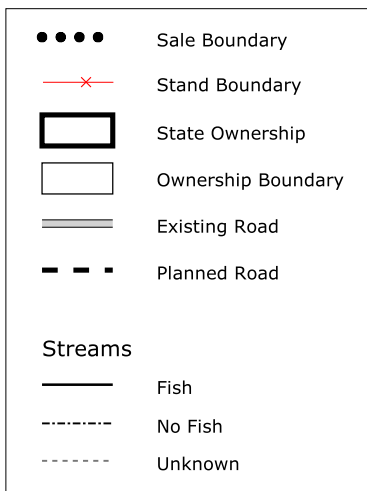
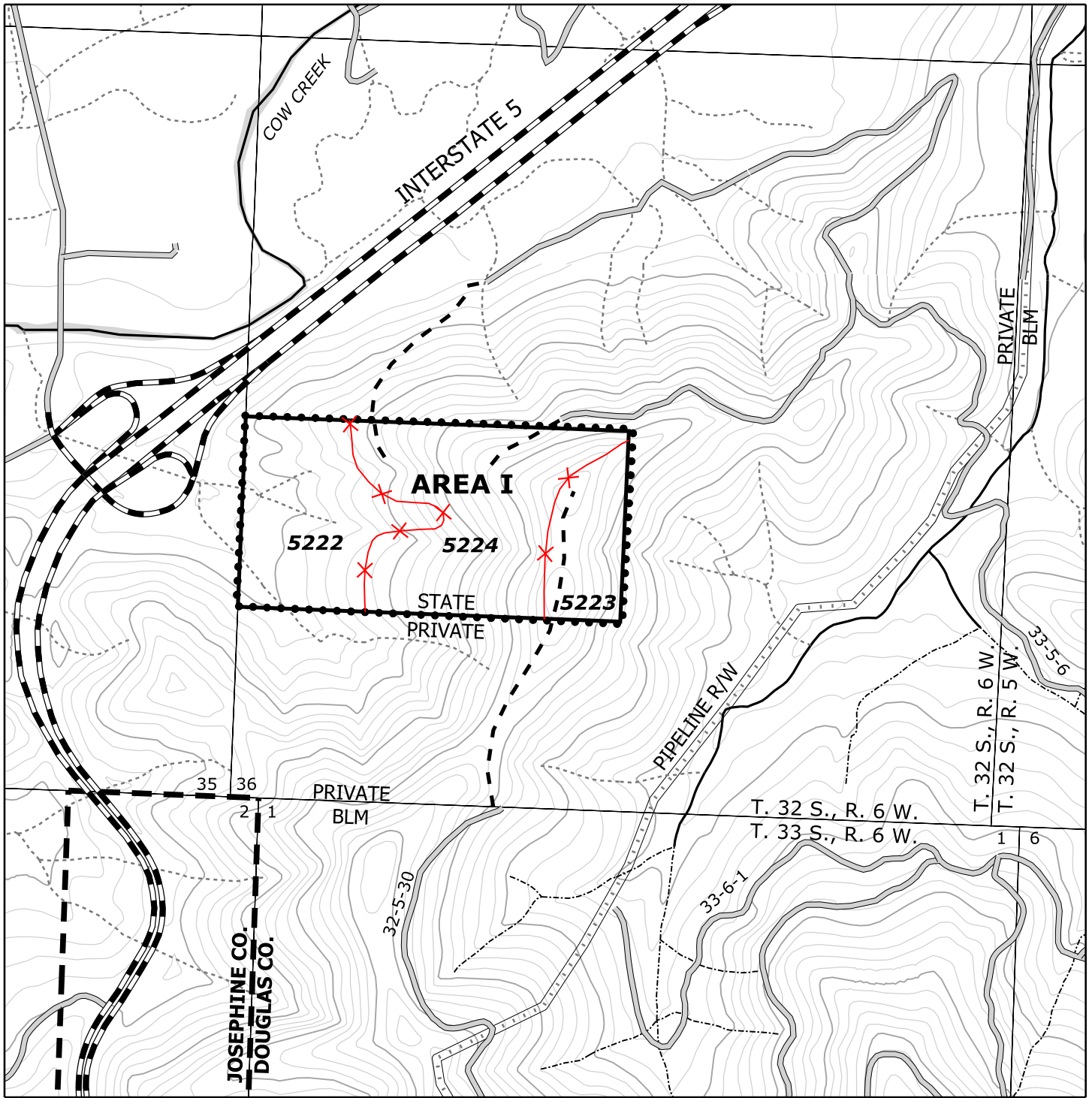
The Visual Classification is rated as Level II – Medium Sensitivity. Portions of the sale will be visible for a portion of Interstate 5. This thinning sale will leave sufficient canopy that the impact from the sale will be difficult to detect from afar.

XIII. OTHER RESOURCE CONSIDERATIONS:

There are no other resource considerations within or adjacent to the sale area.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The sale has streams that receive “focused” or “special stewardship”. Small seasonal streams receive focused stewardship in the inner and outer RMA zones where a specified basal area retention is required. Small perennial streams receive special stewardship or specific stream buffer protection in the stream bank zone. The inner and outer RMA zones of the perennial streams receive focused stewardship. The small fish-bearing streams receive the above stewardship with an added emphasis, or special stewardship in the aquatic and inner riparian management areas. The stewardship is accomplished through stream buffers of increasing size as the stream becomes larger and supports fish. Specific requirements are listed in the appendix of the Southwest Oregon Forest Management Plan riparian management area rules.



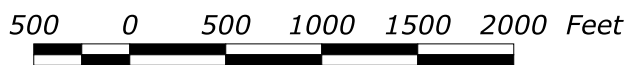
Exit 80 Thin



S.W.O. District - 2010 Annual Operations Plan

ACRES (est. gross)
 TOTAL : 83 acres

T. 32 S., R. 6 W., Sec. 36; W.M.
 Douglas County, Oregon



Contour Interval : 40 feet

MEMORANDUM

TO: Chris Rudd
FROM: Randy Smith
SUBJECT: Preliminary Biological Assessment for the **Exit 80 Thin** Timber Sale
DATE: February 27, 2009

Executive Summary

Exit 80 Thin is a proposed sale in the 2010 Annual Operations Plan of the Southwest Oregon District and is located within the home range of the Swamp Gas northern spotted owl site.

The Activity Center (AC) is within 0.14 miles of the thinning sale boundary and proposed new road construction.

After harvest of the sale, 60% suitable habitat will remain post harvest within the 0.7 mile circle and 52% within the 1.3 mile circle for the Swamp Gas NSO site. Habitat will exceed the Incidental Take Guidelines (ITG).

This sale is outside of the known inland range of the marbled murrelet (>50 miles from the ocean). As currently proposed, the Exit 80 Thin timber sale is expected to have a **moderate** risk of negatively affecting the occupancy and productivity of the Swamp Gas northern spotted owl site.

Introduction

Purpose

The Southwest Oregon District is proposing the Exit 80 Thin timber sale in their 2010 Annual Operations Plan. This sale area contains suitable habitat for northern spotted owls. Portions of the sale are within the 0.7 and 1.3 mile circle for the Swamp Gas northern spotted owl activity center. This memo presents the relevant biological information needed to assess the potential effects of the Exit 80 Thin timber sale on northern spotted owls.

Policy Direction

Northern Spotted Owls

ODF is implementing a draft pilot project in Southwest Oregon to investigate alternative strategies for managing northern spotted owls (ODF 2007). The Exit 80 Thin sale is part of this pilot project.

Under this pilot project the following standards are being applied:

- a minimum of 500 acres of suitable habitat is maintained within 0.7 mile radius circle
- a minimum of 40 percent suitable habitat is maintained within a 1.3 mile radius home range circle
- Prescriptions designed to be consistent with the description of optimal foraging habitat, described under "Assumptions: Defining Suitable Spotted Owl Habitat" below, are considered to maintain stands as suitable foraging habitat.

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.

ODF is continuing to work with USFWS on this pilot project and will be monitoring to evaluate success at meeting objectives.

Background

Survey History and Site Information

Potential spotted owl habitat surrounding the timber sale was surveyed according to protocol endorsed by the USFWS (Anonymous, 1991).

Swamp Gas

This site has been monitored by BLM since it was established in 1981. A pair was located at this site in 1981 and was monitored off and on through 1987 but has been monitored every year since 1988. Successful nesting was documented in 1997 (1 fledged), 1998 (1 fledged), 2001 (1 fledged), 2002 (2 fledged) and 2007 (2 fledged) (Kingfisher, 2008). Juveniles fledged from the 2007 nest were from the current activity center (AC). All previous nests were further to the ENE from the current AC on private and federal ownership. This AC is approximately 0.14 miles from the Exit 80 Thin timber sale. The entire sale is within both the 0.7 and 1.3 mile circles for Swamp Gas site. Owls from this site have not been located within the proposed Exit 80 Thin timber sale area.

Sale Area Information

According to Stand Level Inventory (SLI) information from 2003 and field cruise information from 2008, the Exit 80 Thin sale consists of 80 net acres in 1 sale area. There are three stand types identified within the sale and they are currently classified as understory (UDS) and closed single canopy (CSC) with a desired future condition as layered (LYR) and older forest structure (OFS). The sale is comprised of 85-113 year-old Douglas-fir overstory with areas of dense conifer understory including minor fir species, pine and cedar species along with larger amounts of hardwoods (madrone) along the lower slopes of the sale. In addition to the SLI information, additional cruise plots were taken in all three stand types which found slightly higher conifer and hardwood basal areas than the range reported from the limited SLI plots. The average stand diameter throughout the sale area is 14-20 inches and has a basal area (BA) ranging from 225 to 255 trees per acre. The sale area is fully stocked with conifer and has dense areas with smaller conifers and various hardwood species. SLI reports few older, sound conifer snags greater than 24 inches in the sale. The sale area has approximately 250-580 cubic feet per acre of existing down wood in all decay classes. I have walked through all three stand types within the sale and I consider the entire sale currently suitable habitat for northern spotted owls.

Prescription

The commercial prescription will primarily be a light to moderate basal area thinning from below across all three stand types to remove the suppressed, intermediate and some of the co-dominant trees from these stands. Some of the healthy advanced understory, including hardwoods, will be reserved to promote layering. An upper diameter limit of 28" will be established to preserve the largest and healthiest trees in the stands. Thinning these stands will increase the health and vigor of the residual conifer and hardwood trees as well as reduce the likelihood of insects, disease, wildfire, or other stand replacing events. Approximately 2-5% of the sale area will remain in unthinned patches at least 1 acre in size due to limitations in logging capabilities. Opportunities to create ¼ to 1 acre patch cuts mimicking natural disturbance processes of older forest stands will be explored during sale layout. These patch cuts provide an opportunity to leave extra down wood. Existing snags will be retained where feasible and an estimated 1 to 1.5 snags per acre will occur as a result of logging and natural mortality. In addition, approximately 1 snag per 2 acres will be created by topping or girdling. Existing down wood will be retained and approximately 100 cubic feet/acre of class 1 wood will be added through normal harvest operations. Regeneration from seed will occur naturally as a result of the thinning, especially in patch cut areas.

All 80 net sale acres will receive a light to moderate thinning from below, based on stocking levels, of the intermediate size classes of conifer and a portion of the dense hardwood and conifer patches. All trees scheduled for removal have been marked with loggers paint which enables the determination of retained basal area and provides a better estimate of canopy closure post-harvest. The target is to

retain a mixed species stand with a conifer basal area (BA) of 140-160 distributed across stand diameters. Larger hardwoods and minor conifer species will be retained to provide layering and maintain a high level of canopy closure. A goal of the thinning in this sale is to retain suitable NSO habitat with a minimum canopy closure of 50-60% while reducing fuel loading lowering the risk of a stand replacement fire. Existing down wood and large snags that are not safety hazards will be retained.

Assumptions

Defining the Home Range

We do not have specific information about the home range of the northern spotted owl site 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 range of this site, I assumed that a 1.3 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 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 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 (approximately 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 Swamp Gas spotted owl site includes lands managed by federal, state, private industrial and private non-industrial landowners. Determination of habitat status within the owl circles was done by utilizing state and federal stand data, considering 2005 series air photos, 2008 field assessments and owl use data.

As part of the development of the draft pilot project for northern spotted owls in Southwest Oregon, USFWS provided the following information stand characteristics that are associated with spotted owl "optimal foraging habitat":

- Multiple species are present
- Conifer basal area of 160 – 250 sq. ft./acre
- Minimum canopy closure of 50 – 60%
- At least 4 conifer trees per acre that are ≥ 24 " DBH
- Snags and downed wood approximating Late Successional Reserve Assessment targets:
 - 3 – 5 snags/acre
 - 10 tons downed wood/acre that is ≥ 20 " diameter (large end)
 - 5 tons downed wood/acre that is ≥ 9 " diameter (large end)

For the purposes of this assessment, prescriptions designed to be consistent with these characteristics will be assumed to maintain the suitability of spotted owl habitat, and not to downgrade the suitability of spotted owl habitat. Prescriptions may temporarily degrade spotted owl habitat, but it is not expected that this would happen to the extent that owls would cease to use the habitat. Sale prescriptions will be evaluated in their own context based on many factors. Degrading several of these factors at once may downgrade habitat, but factors such as canopy closure have greater magnitude than the others.

Impact Assessment and Discussion

Landscape Analysis

The following discussion assesses the habitat situation within 0.7 and 1.3 miles of the Swamp Gas spotted owl activity center, as recommended by the ITG (Table 1, Figure 1).

The Exit 80 Thin timber sale will partial cut 80 net acres within the 0.7 mile circle for the Swamp Gas spotted owl site. The light to moderate thinning prescription over the 80 sale acres within the 0.7 mile circle will be assumed to remain as suitable post harvest. A habitat analysis of the Swamp Gas spotted owl site indicates that there are approximately 591 acres of suitable habitat within 0.7 miles of the activity center. No suitable habitat will be removed from the sale area, however, approximately 2 acres of habitat will be removed on private lands for new road construction. If the 2 acres of habitat removed due to road construction is excluded from suitable habitat, then approximately 589 acres (60%) of suitable habitat are available within 0.7 miles of the activity center.

The Exit 80 Thin timber sale will partial cut 80 acres within the 1.3 mile circle for the Swamp Gas spotted owl site. The light to moderate thinning prescription over the 80 sale acres within the 1.3 mile circle will be assumed to remain as suitable post harvest. A habitat analysis of the Swamp Gas spotted owl site indicates that there are approximately 1772 acres of suitable habitat within 1.3 miles of the activity center. If the approximately 2 acres of habitat lost due to road construction are excluded from suitable habitat, then approximately 1770 acres (52%) 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 both the 0.7 and 1.3 mile circles after harvest to be consistent with the ITG.

Effects of the Prescription

The effects of thinning on spotted owl habitat are not well understood. Spotted owls are known to use stands that have been thinned for foraging and for nesting (Anthony et al. 2000; Tappeiner et al. 1999), and this research indicates that in the long term, thinning is a tool that can develop spotted owl habitat (Tappeiner et al. 1999). However, the short-term effects of thinning are less clear. In a case study of a thinning near an owl core area in Clatsop County, spotted owls displaced their foraging activity for at least a couple of years after the harvest (Anthony, et al. 2000). Other anecdotal evidence on state forest lands in this District indicates that on at least one occasion, spotted owls have used recently thinned stands for nesting within two years of harvest.

The prescription of the 80 sale acres will retain sufficient habitat elements immediately post harvest to be consistent with the definition for optimal foraging habitat, and thus are assumed to maintain these areas as suitable foraging habitat. These acres will be comprised of a mixed species stand, will retain or exceed minimums for snags, down wood and conifer BA with retention of large conifers, and canopy closure. Although the habitat may be temporarily degraded from thinning operations, it will likely remain as foraging habitat immediately post harvest and will develop more rapidly into increasingly suitable NRF habitat in the future. The stands should also be more resilient to potential wildland fires.

Discussion

The Swamp Gas spotted owl site is 0.14 miles from the proposed Exit 80 Thin timber sale. I visited the area around the AC on 1/21/09. The nest tree is a single, residual Douglas-fir with a broken top and numerous new leaders providing cover for the nest. The nest tree is the only large structure for quite some distance in an approximately 30-40 year old Douglas-fir plantation on private ownership. The nest tree is on the lower 1/3 of the hill slope and towers over the plantation. This is not a typical nesting, roosting, foraging (NRF) site but these owls have successfully fledged young at this location

in 2007, likely due to abundant wood rats as evidenced by the numerous nests found in the understory stand below the nest tree.

The proposed new road construction to the west of the AC will come to within approximately 0.14 miles upslope of the nest tree. This road will also be a partial haul route from the sale area out to the highway. Activities associated with road construction and hauling this close to the AC may have unknown impacts to the owls at this site, even if activities were conducted outside the seasonal restriction period. Disturbance in such close proximity to the nest tree and AC may cause the owls to avoid nesting and/or abandon the site even if the activities were done outside the breeding season. I believe potential impacts to the AC could be reduced if an alternate access route from the NE portion of the sale were utilized instead of new construction coming from the south, nearer the nest site.

All 80 sale acres are within both the 0.7 and 1.3 mile circles and all will be assumed suitable habitat immediately post harvest. The Swamp Gas spotted owl activity center is on private ownership and harvest plans of private landowners are not known at this time. Federally managed land makes up 33% of the area within 1.3 miles of the spotted owl activity center, 2% is managed by ODF and 65% is managed by other landowners. The habitat surrounding the current AC appears to be low quality nesting and roosting habitat based on aerial photos and a field visit 1/21/09. The core use area, which also contains past nest sites, appears largely centered on private ownership with a smaller portion on federal ownership. This area is likely becoming increasingly important as more of the private lands to the south and west of the AC is being operated upon and becoming more fragmented. Fragmentation does not currently appear to be a large issue within this circle but may become a larger issue and potentially increase the risk to this owl site if future harvest on privately owned lands near the AC continues to occur. The remaining habitat on state and other lands near the spotted owl activity center is of lower quality but still appears to be able to provide foraging and roosting opportunities for spotted owls.

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.

Conclusions and Risk Assessment

Biological Risk

As currently proposed, the Exit 80 Thin sale is expected to have a **moderate** risk of negatively affecting the occupancy and productivity of the Swamp Gas spotted owl site. I believe the primary concern at this site is from disturbance activities in such close proximity to the nest tree and activity center. This moderate risk assessment is based on the following factors:

- ◆ The sale is close to the nest tree, 0.14 miles;
- ◆ The proposed new road construction and partial haul route is also 0.14 miles upslope of the nest tree;

As stated previously, the sale is designed to maintain habitat suitability over the entire sale area so there is no net loss of habitat with the exception of the two acres lost from the proposed new road construction. I believe the following factors do not make Exit 80 Thin a high risk assessment:

- ◆ The proposed sale prescription is a thinning that will retain habitat elements and enhance future development of habitat important to northern spotted owls;
- ◆ The prescription will maintain habitat suitability over the entire sale area immediately post harvest;
- ◆ Fragmentation will not be increased due to harvest operations;
- ◆ Approximately 60% of the 0.7 mile circle and 52% of the 1.3 mile circle will remain as unmodified suitable habitat after harvest of the sale, exceeding the 40% target specified in the ITG.

There exists potential options which I feel could reduce biological risk to the owls at this site. These options include:

- Restricting all operations during the seasonal restriction period, March 1 – September 30 regardless of nesting status;
- Finding alternate access to the southeast portion of the sale and not construct the road nearest the AC;
- Removing that portion of the sale and road construction within ¼ mile of the AC thus eliminating the need for seasonal restrictions.

This site will need close monitoring to determine nesting location and status. If the owls move further away from the sale, then disturbance concerns would likely be lessened but a new habitat analysis would need to be conducted to determine if enough suitable habitat was available to meet guidelines.

Compliance with Policy

After completion of harvest operations associated with the Exit 80 Thin timber sale, the remaining suitable habitat within the Swamp Gas owl circle will exceed the standards identified in the U.S. Fish and Wildlife Service rescinded Incidental Take Guidelines.

Consultation

Tod Lum, District Wildlife Biologist with the Oregon Department of Fish and Wildlife, did not provide any comments on this preliminary BA.

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.

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Table 1. Acres of suitable habitat within 0.7 and 1.3 mile circles of the Swamp Gas northern spotted owl activity center. Suitable habitat determined through 2005 air-photo analysis and 2009 field assessment.

	Acres	Swamp Gas	
		0.7 mi	1.3 mi
Suitable Habitat:			
State		81	81
Federal		212	717
Private		298	974
Total		591	1772
Sale acres in circle removed as habitat	80	0	0
Acres removed for road construction		2	2
Unmodified suitable habitat remaining		589	1770
% suitable post harvest		60%	52%