

Pre-Operations Report

Operation Name: Sim Power

County: Tillamook

Management Basin: Tillamook (73%), Trask (24%), and Nestucca (3%)

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	Partial Cut	46	44
2	Partial Cut	39	39
3	Partial Cut	58	56
4	Partial Cut	36	35
Total		179	174

¹ The net acres are based on orthophotos and GPS and exclude roads, stream buffers, reserve areas and non-required thinning areas.

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 15% to 75%. Elevations range from 2000 to 2800 feet. The major soil type is undesignated series with minor components of Osweg and Jewell.

The sale is composed of four areas that are located on the divide between Skookum Lake headwaters, Fawcett Creek and Edwards Creek and a small portion of the headwaters of Beaver Creek. The underlying rock is igneous origin of the Tillamook Volcanics Formation, thick to massive tuff interbedded pillow basalt, pillow breccia, basaltic sandstone and mudstone. The landform is gentle to steep ridge between Fawcett Creek and Edwards Creek.

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information⁴

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	PC	300	WH/DF	51	16/15	90/60	62/50	44	44
		Target ³	WH		16	85	54	25	
2	PC	301	WH/NF/RA	51	17/22/15	130/30/20	86/11/17	43	39
		Target ³	WH/NF		19/22	80/30	39/11	25	
3	PC	302	WH/DF/NF	38	14/16/20	58/45/35	55/34/17	40	56
		Target ³	WH/NF		14/20	58/35	55/17	25	
4	PC	303	DF/WH/NF	41	14/15/18	60/53/60	57/45/32	41	35
		Target ³	WH/NF		15/18	47/60	37/32	25	

¹ The source of stand inventory information is from field reconnaissance cruise plots taken in 2003 and 2004.

² The net acres are based on orthophotos and GPS and exclude roads, and stream buffers, reserve area and non-required thinning areas.

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

⁴ These numbers are based on plot data taken to this point and final numbers may differ significantly from the actual conditions. The directive for minor and major modifications will be followed for further review.

The east portion of the sale area burned in the 1933 Tillamook, 1939 Saddle Mountain, and 1951 Elkhorn fires. Portions of Area 4 were seeded in 1967 and 1968, and the remainder of the sale areas naturally regenerated. The east portion of Area 3 was pre-commercially thinned in 1990.

Approximately 134 acres has been inventoried using the Stand Level Inventory (SLI) procedure and the stand has been identified as CSC and UDS. The remaining acres of the sale were identified as CSC according to the district stand summary information (1999).

UDS areas are characterized by a few larger noble fir and hemlock trees surrounded by a variable understory of Douglas-fir and alder. The smaller stand components are not showing signs of sustainable growth. The brush component of the understory is uneven, with few species under the hemlock overstory.

See Table 2 for specific stand data.

The Douglas fir has Swiss needle cast (SNC) symptoms resulting in slowed diameter and/or height growth. The stands are within the SNC zone. The hemlock is overstocked and has poor height to diameter ratios resulting in poor live crown ratios and slowed diameter growth. There is scattered noble fir, cedar, and alder throughout the sale. The alder components of these stands were aerially sprayed to release conifer in the 1970's resulting in alder trees with short boles and many limbs. No other significant insect or disease problems have been discovered at this time.

The brush component in all the sale areas is comprised primarily of vine maple, sword fern or salmonberry. The vine maple is in patches, and salmonberry most concentrated around riparian areas with alder.

There are some large snags in various states of decay and/or some hard snags created from (wind, snow, and/or bear damage). SLI reports less than 8 snags per acre total between 12” and 24” DBH. One area has less than 1 large hard snag per acre, the remaining areas have no hard snags. Down wood consists of scattered large old logs (36”+) in Class 3 and 4 stages of decay and some windthrow in decay classes 1 and 2. Down wood ranges from 2100 to 6300 cubic feet per acre including between 6 and 85 cubic feet in decay class 1 and 2, as measured by SLI representing approximately 134 acres of the sale area.

III. DESIRED STAND CONDITION and VISION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	300	UDS	UDS	GEN/OFS	2/42
2	301	UDS	UDS	GEN/OFS	1/38
3	302	CSC	UDS	GEN/OFS	31/25
4	303	UDS	UDS	GEN/OFS	34/1

¹ The stand is expected to develop into this condition in the five to ten years after this operation is completed except in REG stands which occur after harvest.

See Section IV: Proposed Management Prescription for more information on Green Tree, Down Wood, and Snag Strategies during operation. Also refer to Landscape Design in the Summary document for more information on strategies to move the district toward Desired Future Condition goals.

The Tillamook River Basin has been targeted for complex structure. The prescriptions described below are based on the current stand condition such as overall tree and stand growth, species mix, stand density, and stand health. See Section II, Current Stand Condition. The primary goal of this entry is to reduce the density of the hemlock and Douglas-fir in the stands to promote general health. Another benefit of conducting harvest operations is the ability to create openings around potential murrelet trees to facilitate limb growth for increased nesting opportunities. Since this is a first entry thinning, future managers will need to reevaluate the stand structure again and determine when the next activity should take place.

Partial Cut:

In the short term all areas will be partial cut to reduce stand density. This is primarily a first entry operation to begin to move the stand along the pathway to more complex structure. Additional treatments may be necessary.

In the long term this operation moves the stand toward more complex structure. This prescription will allow for openings and gaps in the stand to allow the residual trees to grow larger in diameter and crown depth. The openings and gaps will also allow for understory reinitiation of shrubs and tree species creating horizontal and vertical diversity. The expectation is that future management will continue the growth of overstory trees as well as understory trees and shrubs species.

The treatment of 4 areas will create a mosaic over 212 acres of openings, gaps, variable densities and mixed species. Unmanaged hardwood and conifer mixes will be left in headwalls, and/or in riparian buffers as well as scattered in the units.

As the stand matures the residual trees will add to complexity of sizes, species and densities by being significantly different than the understory. These trees will also add to snags and down wood over time and through the life of the stand. Natural regeneration of shade tolerant species is expected to fill the gaps created.

The current amount of snags is adequate for the *Forest Management Plan's* short term goals. A snag assessment will be done approximately five years following sale completion to ensure a constant supply. Partial cut units with a resulting average diameter over 15 inches will be reviewed for snag creation at time of harvest. Larger noble fir and spruce may be targeted for snag creation.

IV. PROPOSED MANAGEMENT PRESCRIPTION AND ANTICIPATED PATHWAY:

See table 2 for prescription targets

Partial Cut:

In all areas merchantable alder will be harvested. Douglas-fir and/or hemlock will be thinned to a basal area range to be determined after a more comprehensive cruise. Noble fir volume will be negligible. A diameter limit cut seems to be the best option to achieve management goals. All other species will be reserved. The Northwest Oregon Area Biologist will be consulted during sale layout to determine where to create openings to enhance murrelet habitat.

Understory vegetation will be enhanced by the growing space made available.

Green Tree, Down Wood and Snag Strategies

See also Section III: Desired Future Condition for long term strategies

Small non-merchantable hardwood and conifer will also be retained where possible. These leave trees function as future source of snags and down wood recruitment across the landscape. Green trees will be left on precipitous slopes, headwalls, and those areas not reached by conventional logging methods.

Stream buffers adjacent to small perennials will also contribute additional green trees. Many of these areas will be posted so they are outside of the timber sale boundary.

Existing down wood will be left in the sale areas. Down wood recruitment is expected through mortality and windthrow of residual or leave trees and felled snags. Tops resulting from ground yarding will be left in the unit.

Existing snags not determined to be a safety hazard will be retained and any felled snags will be left for down wood. Creation of snags is expected during harvest activities (rub trees, lift trees, or tail trees) and over time by natural processes. Trees with natural defect will be encouraged to be left.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		X
Planned Quarter:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	769	115	884
Stumpage Value (\$/MBF)*	\$151.20	\$200	
Estimated Gross Value	\$116,275	\$23,000	\$139,275
		Project Costs:	\$40,000
		Estimated Net Value:	\$99,275

****Combined Douglas-fir and hemlock stumpage values based on harvest type.***

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Munson Creek County Road and Simmons Ridge Road. These are currently all weather, crushed rock roads. Skookum Lake Road and Mainline 1000 are dirt roads accessing the west and east portions of the sale area, respectively. An alternative route down the BSM Road to the South Fork Trask may be evaluated during sale preparation. This route may provide for lower cost of road improvement. The investment of improving Simmons Ridge Road is still the best option since it is a major access road.

Approximately 2 miles of existing surfaced and 1.8 miles of existing unsurfaced roads in the sale area will be improved which includes grading, rocking, widening, culvert replacement, spot rocking, sidecast pullback, and adding new culverts. This work will bring all roads up to standards described in *the Forest Roads Manual*. See maps for specific road locations and conditions.

Approximately 0.4 miles of road will be constructed to provide access to cable yarding areas. Following harvest, roads within the sale areas will be closed to public traffic. See summary document for more information on this topic.

Area 1 will be 86% cable yarding and 14% ground yarding. Areas 2 and 3 will be 100% cable yarding. Area 4 will be 91% cable yarding and 9% ground yarding.

Seasonal restrictions for hauling will be used for Sim Power. In accordance with T&E surveys all falling will take place by March 2008.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct	0	0	0	0.4
Improve	0	0	3.8	0
Maintain ²	7.8	0	0	0
Close/Block ³	0	0	1.8	0.4
Vacate ³	0	0	0	0

¹ Additional roads may be built by the operator at the time of harvest and will be approved by the State through the Operations Plan. These will be short dead end spurs and closed or blocked after harvest

² All roads accessing the sale area will be maintained during the life of the timber sale contract. Maintenance miles in the table are those roads not being constructed or improved.

³ Roads not closed/blocked or vacated at the end of the sale will be reviewed for closure after reforestation is established.

⁴ The numbers in this table reflect planned Project Work associated with the sale.

VII. AQUATIC RESOURCES AND WATER QUALITY:

Munson Creek and Simmons Creek are large Type F streams that are adjacent to the haul route. There are several unnamed small perennial and seasonal Type N streams within the sale area. These streams will be reviewed and protected appropriately during sale layout based on flow, topography, and terrain.

Oregon Department of Fish and Wildlife (ODFW) will be requested to complete stream surveys before sale layout. Streams of unknown status will be treated as Type F until surveys are completed to verify fish use. A watershed analysis has been completed for the Trask River Basin.

Fawcett Creek and other small streams within the west portion of the sale contribute to a municipal watershed downstream from the sale areas. Streams will be managed according to Forest Management Plan Riparian Strategies and restrictions will be in place while working in and around the municipal watershed. The sale areas are on the ridges so extra protection measures will be evaluated during sale layout.

In order to protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods include (but are not limited to) maintaining culverts and other road drainage structures, using sediment control devices in road ditches when necessary, and monitoring logging and hauling operations. Culvert installment and replacement in live streams will be conducted between July 1 and September 15. Operations outside of this period will be reviewed with ODFW.

VIII. T&E SPECIES CONSIDERATIONS:

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist. It was determined that in the sale areas there is potential northern spotted owl habitat within or adjacent to the sale boundary. Surveys will have been conducted during the 2003, 2004 and 2005 survey seasons for northern spotted owl. All northern spotted owl surveys were conducted in accordance with USFWS endorsed protocol.

It was determined that in the sale areas, there is potential marbled murrelet habitat within or adjacent to the sale boundary. Surveys for marbled murrelets will have been conducted during the 2005 survey season and will be conducted during the 2006 survey season. All surveys for marbled murrelet are conducted in accordance with Pacific Seabird Group (PSG) protocol. The haul route is adjacent to the Low Simmons Marbled Murrelet Management Area (MMMA). Seasonal restrictions will be in place along Simmons Ridge Road. All falling will take place by March 2008.

T & E Fish species: See Sections VII, and IX for listed fish protection measures.

T & E Plant species: The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known threatened or endangered listed plant locations as well as local records in the Land Management Classification System (LMCS). No listed plants were identified within or adjacent to the sale areas.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The slopes above the northern unnamed tributary of Skookum Lake are mostly gentle to moderate except a small steep portion near the ridgeline. The slopes above Fawcett Creek are moderate with a band of steep slopes near the top of the unit. The slopes above Edwards Creek are very steep but appear to be above a large bench. The very small portion of the sale above Beaver Creek is gentle slope.

The initial assessment by the geotechnical specialists is low for the areas above the northern unnamed tributary to Skookum Lake and the north portion of the

area above Fawcett Creek. The southern portion of the areas above Fawcett Creek and the steep slopes above the bench over Edwards Creek are moderate risk. The geotechnical specialist will be consulted during sale layout and the need for field review will be assessed. The small portion of the operation above Beaver Creek is low.

X. RECREATION RESOURCES:

The sale areas are designated as Non-motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator.

No trails were identified or planned within or adjacent to the sale areas. Recreational use common includes walk-in hunting. The majority of the sale areas are closed to public access due to the watershed.

XI. CULTURAL RESOURCES:

The *Tillamook State Cultural Assessment* does not list any cultural sites within or adjacent to the proposed sale boundary.

XII. SCENIC RESOURCES:

The sale areas have a visual classification of Level 3, low sensitivity. No scenic impact is expected.

XIII. OTHER RESOURCE CONSIDERATIONS:

The east portion of the sale is bounded by a Bonneville Power Administration (BPA) transmission line. BPA will be consulted prior to sale layout and throughout the sale operation.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Areas 1, 2 and 4 contain Focused Stewardship, Aquatic and Riparian Habitat and Domestic Water Use. See Section VII, Aquatic Resources and Water Quality for the management guidelines to be used during sale layout and harvest.

Area 3 contains Focused and Special Stewardship, Aquatic and Riparian Habitat, Domestic Water Use and Transmission Lines. See Section VII, Aquatic Resources and Water Quality, and Section XIII, Other Resource Considerations for the management guidelines to be used during sale layout and harvest.

Boundary lines depicted on Attachment C are approximate; exact locations and site specific management activities will be determined during the sale preparation process.