

# Pre-Operations Report

**Operation Name: Clatsop Thin**  
**County: Clatsop**  
**Management Basin: North Fork Nehalem**

**Table 1. Operation Areas, Types and Acres**

Area	Type of Operation	Gross Acres	Net Acres <sup>1</sup>
1	PC	71	65
Total		71	65

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

## **I. PHYSICAL DESCRIPTION OF OPERATION AREA:**

Slopes have a northwest aspect and range from 5% to 60%. Elevations range from 280 to 800 feet. The major soil types are Fishhawk and Pittsburg.

The landform is moderate to very steep slopes around the headwaters of a tributary stream to the North Fork of the Nehalem River. The underlying rocks are mostly sedimentary origin Smugglers Cove Member of the Astoria Formation with a small igneous origin invasive flow of the Columbia River Basalt Formation in the western portion of the sale area.

## **II. CURRENT STAND CONDITION:**

**Table 2. Stand Inventory Information<sup>4</sup>**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Net Acres <sup>2</sup>
1	PC	102	WH,SS, DF,RA	50,70	16.7	304	201	57	65
		Target <sup>3</sup>	WH,SS, DF,RA	50,70	22.1	147	55	24	65

1. The source of stand inventory information is from field reconnaissance cruise plots taken 2005.

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

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 significantly. The directive for minor and major modifications will be followed for further review.

A large portion of the sale area was planted in 1964, but has a lot of natural hemlock regeneration within the planted areas. The remaining area of the sale (approximately 20 acres) was naturally regenerated. This has created a stand that has large patches of small dense conifer and smaller patches of large hemlock and spruce that were more open grown. There are also small pockets and stringers of hardwoods scattered throughout the sale area. The smaller hemlock is very dense (approx. 65% SDI) and reached stem exclusion resulting in poor height to diameter ratios, poor live crown ratios, slowed diameter growth, and very little understory. The crown closure in the larger diameter conifer is reaching 80%, causing mortality in the understory conifer and shrub species (mainly salal and salmonberry).

Approximately 20 acres has been inventoried using the Stand Level Inventory (SLI) procedure; of this approximately 8 acres of the stand has been identified as UDS and approximately 12 acres of the stand has been identified as LYR. The remaining 45 acres of the sale were identified as CSC according to the district stand summary information (1999). A variety of stand structures have been identified throughout this sale due to the large patches of dense small hemlock, the small pockets of large hemlock, and the stringers of alder scattered throughout the sale area.

See Table 2 for specific stand data.

Down wood in the entire sale area consists of scattered large old logs (36"+) in Class 3 and 4 stages of decay and some windthrow suppression mortality in decay classes 1 and 2. The SLI measurements that represent approximately 20 acres of the stand show that the down wood level in decay classes 1 and 2 is on average 780 cubic feet per acre. Total down wood levels in the same area is on average 11,860 cubic feet per acre. On average there are 2.5 down wood logs per acre greater than 24 inches on the large end in decay classes 0, 1, and 2. In this area, the down wood level has exceeded the minimum requirements for OFS stands.

The remaining portion of this stand has not been inventoried using SLI at this time so down wood information is unavailable. Field observations in this portion of the stand show that the measured information outlined above reflects what is happening in this stand but at a lower level.

In all of the sale areas there are some large snags in various states of decay and some hard snags created from wind and snow damage. The SLI measurements that represent approximately 20 acres of the stand show that the total snag level is on average 11 snags per acre greater than 12 inches DBH, of these approximately 6 snags per acre are greater than 24 inches DBH. On average 1.5 snags per acre of the total level are greater than 15 inches DBH and in decay classes 0, 1, and 2. The remaining area has not been inventoried using SLI at this time so snag information is unavailable. Field observations in this portion of

the stand show that the measured information outlined may not reflect what is happening in this stand.

### III. DESIRED STAND CONDITION and VISION:

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	102	CSC	UDS	LYR	45
		UDS	UDS	LYR	8
		LYR	LYR	LYR	12

*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.

#### **Vision:**

This area has a desired future condition of LYR. Partial cutting the large patches of small dense conifer and smaller patches of large hemlock and spruce will maintain and improve individual tree growth and promote understory conifer and shrub development as a result of increased light to the forest floor. In the portion of the area that is currently in LYR structure this partial cut will be designed to maintain the stand growth and to facilitate continued understory development, stand complexity, and individual tree growth. Planned snag creation and current levels of snags and down wood combined with understory development and maintenance, and leaving a residual conifer and hardwood overstory will provide for future horizontal and vertical diversity, ultimately moving portions of this stand towards LYR structure and maintaining the portion of the stand that is currently in LYR structure. This stand will be looked at in 15 to 20 years to determine if another entry is needed to maintain structure.

This timber sale combined with adjacent recently managed thinnings, regeneration harvests, future planned sales, and unmanaged stands will create a mosaic across the landscape of openings, small gaps, variable densities, and a variety of stand structures.

### IV. **PROPOSED MANAGEMENT PRESCRIPTION AND ANTICIPATED PATHWAY:**

The prescription described below is based on the current stand condition such as overall tree and stand growth, species mix, stand density, and stand health.

**See table 2 for prescription targets**

**Partial Cut:** A partial cut will thin the hemlock, spruce, and Douglas-fir to a basal area range of 140ft<sup>2</sup> to 160ft<sup>2</sup>. All other species (conifer and hardwood) will be reserved. This will reduce the stand density to approximately 24% SDI which is designed to maintain current understory and promote new understory growth. A height limit may be used to reserve intermediate trees that are providing vertical diversity. Another thinning is anticipated in 15 to 20 years to maintain stand structure diversity.

**Green Tree, Down Wood and Snag Strategies**

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

Existing down wood will be left in the sale areas. Down wood recruitment is expected through mortality and windthrow of residual or leave trees, felled snags and tops left during harvest. Small non-merchantable hardwood and conifer will be retained where feasible in harvest units with the expectation they will become short term snags and down wood. A down wood assessment will be done during sale layout to determine approximate levels which will be used to help develop down wood creation prescription for this area if it is needed, in order to meet the FMP requirements.

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 from rub trees, lift trees, and tail trees and over time by natural processes. Snag creation will be used during the harvest operation in order to meet future FMP targets.

**V. ESTIMATED TIMBER AND REVENUE INFORMATION:**

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%	<input type="checkbox"/>	x
Planned Quarter:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	1398	0	1398
Stumpage Value (\$/MBF) *	\$106	0	
Estimated Gross Value	\$148,188	0	\$148,188
		Project Costs:	\$46,340
		Estimated Net Value:	\$101,848

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

## **VI. HARVESTING AND ACCESS CONSIDERATIONS:**

The sale areas are accessed via County Line Road. This currently is an all weather crushed rock road.

See maps for specific road locations and conditions.

Approximately 1.5 of existing surfaced road and .5 miles of a legacy road will be improved includes grading, rocking, spot rocking, and possibly some sidecast pullback. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately 0.5 miles of road will be constructed in order to provide access to cable yarding areas. Following harvest, roads within the sale areas will be reviewed for closure. Ground yarding roads will be closed and water-barred following harvest. See summary document for more information on this topic.

A combination of cable yarding systems (95%) and ground yarding (5%) will be used. Ground yarding will generally be limited to slopes under 35%.

**Table 5. Transportation Planning Summary (Miles)<sup>4</sup>**

Activity	Mainline	Collector	Rocked Spur <sup>1</sup>	Dirt Spur <sup>1</sup>
Construct			0.5	
Improve		1.0	0.5	0.5
Maintain <sup>2</sup>				
Close/Block <sup>3</sup>				
Vacate <sup>3</sup>				

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:**

There is a unnamed small Type F stream that is within the sale area. There are potentially additional unnamed small Type N streams within the sale area. These streams will be located, 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 prior to sale layout. Streams of unknown status will be treated as Type F until surveys are completed to verify fish use.

There are some small wetland areas adjacent to the Type F streams that are located within the sale area. These wetlands are located within the Type F stream buffer and will be protected according to the FMP standards.

All stream buffers within or adjacent to harvest unit boundaries will be managed according to *Forest Management Plan* Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies.

ODF will work with an ODFW fish biologist to identify possible stream enhancement project areas.

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 area has been reviewed with the ODF Northwest Oregon Area Biologist.

It was determined that in the sale area there is potential marbled murrelet habitat within and adjacent to the sale boundary.

Surveys have been and will be conducted during the 2005 and 2006 survey season for marbled murrelets. All surveys for marbled murrelet were and will be conducted in accordance with Pacific Seabird Group (PSG) protocol. At the completion of the 2005 survey season there have been no marbled murrelet detections.

The sale area is adjacent to a Marbled Murrelet Management Area (MMA). Seasonal restrictions will be required for some operations on this sale.

It was determined that in the sale area there is potential northern spotted owl habitat within and adjacent to the sale boundary.

Surveys have been and will be conducted during the 2005 and 2006 survey season for northern spotted owls. All northern spotted owl surveys were and will

be conducted in accordance with USFWS endorsed protocol. At the completion of the 2005 survey season there have been no northern spotted owl detections.

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:**

There are significant steep slopes on the west side of the sale area with some steep slopes scattered through the east part of the sale area . The initial hazard and risk assessment from the geotechnical specialist is high. The geotechnical specialist will be consulted during field work.

#### **X. RECREATION RESOURCES:**

The sale area is designated as non-motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator. No OHV trails were identified within or adjacent to the sale areas. Recreational use common to this area includes hiking, hunting, and horseback riding.

#### **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 area has a visual classification of Level 2, moderate sensitivity. The sale will be reviewed by the Public Use Coordinator to determine methods to minimize visual impact. Visual impact will be minimal due to the amount of residual trees being left in the sale area because this sale is a partial cut.

#### **XIII. OTHER RESOURCE CONSIDERATIONS:**

There is a property line on the east portion of the sale boundary. It has been surveyed and is marked with yellow State Forestry tags, orange reflective tags and pink ribbon.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

This sale contains Focused Stewardship and Special Stewardship, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.