

# Pre-Operations Report

**Operation Name: Ripple Shack**  
**County: Tillamook**  
**Management Basin: Lower Nehalem**

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

Area	Type of Operation	Gross Acres	Net Acres <sup>1</sup>
1	PC	1072	963
Total		1072	963

*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 northern aspect and range from 15% to 70%. Elevations range from 1480 to 3160. The major soil types are Jewell, Killam, Rye and Osweg.

The landform is moderate to steep slopes of the ridgeline divide and the headwaters of Cook Creek a tributary of the Nehalem River and the headwaters of Ripple Creek a tributary of the Salmonberry River. The underlying rocks are igneous origin flow of the Tillamook Volcanics.

There are bands of steep slopes throughout the Sale area. The initial hazard and risk assessment from the geotechnical specialist is moderate. The geotechnical specialist will be consulted during field to determine if a field visit is needed.

## **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	115	DF, WH, NF, RA	50	14.1	284	263	76	963
		Target <sup>3</sup>	DF, WH, NF, RA		18.7	131	69	31	963

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

*2. The net acres are based on orthophotos and GIS and exclude roads, stream buffers, and reserve areas 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 significantly. The directive for minor and major modifications will be followed for further review.

Approximately 250 acres of this sale burned in the 1933 Tillamook Fire. Most of this sale burned in the 1945 Wilson River/Salmonberry Fire. There were several unburned pockets that were logged during the burn salvage, leaving pockets of hemlock and noble fir scattered in the sale area. Field observations have determined that most of this area was planted in the early 1950's. This area also has a lot of natural regeneration. This has resulted in small pockets of dense hemlock, scattered noble fir, and large pockets and stringers of alder intermixed with the planted Douglas-fir. The conifer in the majority of this stand is very dense (approx. 60% SDI) showing signs of stem exclusion and receding live crown ratios, resulting in poor height to diameter ratios, slowed diameter growth, and very little understory. There are some lower density areas that are scattered throughout the sale area that are comprised of less dense conifer and mature alder creating a more complex structure within this stand. This stand also has some large pockets of alder and stringers of alder in riparian areas.

The stands in the sale area are classified as CSC according to the district stand summary information (1999).

See Table 2 for specific stand data.

There are some large snags and down wood resulting from the Tillamook Fire and Wilson River/Salmonberry fire. The 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. There are also a few hard conifer and small alder snags scattered throughout the sale. There is no Stand Level Inventory (SLI) data available at this time. During sale preparation different options such as down wood and snag creation, additional green tree retention, and future stand management and monitoring will be considered in order to achieve FMP targets.

**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	115	CSC	UDS	GEN LYR	858 105

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:**

The desired future conditions for this stand are mainly GEN with a portion of the stands designated as LYR. This stand is a mix of conifer species with some large and small pockets of hardwood species (see current stand condition) which will provide for future opportunities to potentially move this entire stand towards a LYR structure. Partial cutting the dense conifer and alder will improve individual tree growth and promote understory conifer and shrub development as a result of increased light to the forest floor. Small patch cuts will be created by using a diameter cut that will harvest the conifer with poor height to diameter ratios and some of the smaller diameter alder while still retaining non-merchantable alder and large diameter alder were feasible adjacent to residual conifer. This will result in small openings which will add to the variability in the stand density and open up additional growing space. A mix of conifer species will be planted in openings and in areas of low crown closure if necessary. The planted areas will create a second cohort. Current and future 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 a LYR structure. This stand will be looked at in 15 to 20 years to determine if another entry is needed to maintain structure.

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

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.

**Partial Cut:**

A partial cut will remove the hemlock, alder, and Douglas-fir less than 16" DBH in order to remove conifer that have height to diameter ratio issues and small diameter alder. The remaining hemlock, Douglas-fir, and alder will be thinned to an average basal area of 200ft<sup>2</sup> to 220 ft<sup>2</sup>. (Approximately 20 ft<sup>2</sup> of alder will be targeted for retention). All other conifer and hardwood species will be reserved. Non-merchantable alder will be left where feasible adjacent to residual conifer. This prescription is designed to achieve variable densities throughout the areas. There will be patches of high density intermixed with small patch cuts and areas of moderate to low stand densities. The small patch cuts will create additional growing space for understory development. Site preparation for planting may be

needed in these small patches, but will be evaluated after harvesting these patch cuts.

**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. A snag assessment will be done during sale layout to estimate approximate levels which will be used to help develop a prescription for this area it is needed, in order to meet the FMP requirements.

**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:		4	

	Conifer	Hardwood	Total
Net Volume (MBF)	13472	428	13900
Stumpage Value (\$/MBF)*	\$126	\$175	
Estimated Gross Value	\$1,697,472	\$74,900	\$1,772,372
		Project Costs:	\$667,500
		Estimated Net Value:	\$1,104,872

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

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

The sale areas are accessed via Cook Creek Road, and Tin Shack Road. These are currently all weather crushed rock roads. See maps for specific road locations and conditions.

Approximately 6 miles of existing surfaced roads and 9.5 miles of legacy roads will be improved which includes grading, rocking, widening, culvert replacement,

spot rocking, potential sidecast pullback, and adding new culverts. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately 1.7 miles of road will be constructed in order to access 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 (90%) and ground yarding (10%) 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			1.7	
Improve		6	9.5	
Maintain <sup>2</sup>	2	5		
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 are no known Type F streams in the sale area. There are two small streams that are assumed to be Type F streams that are within the sale area. These streams will be surveyed by ODF&W in the 2006 stream survey season to determine fish presence. There are several additional unnamed small perennial Type N streams within the sale areas. There are potentially additional small perennial and seasonal 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.

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.

Oregon Department of Fish and Wildlife (ODFW) will be requested to complete stream surveys before sale layout begins. Streams of unknown status will be treated as Type F until surveys are completed to verify fish use.

Approximately 474 net acres of the sale are within the Cook Cree sub-basin and 489 within the South Fork Salmonberry sub-basin. These sub-basins have been identified as Salmon Anchor Habitat (SAH) Basins and the most current SAH Basin Strategies will be used at the time of contract development.

The 474 acres in the Cook Creek Basin sale was identified as part of the Salmon Anchor Habitat Basin Plans approved in June 2005. See Salmon Anchor Summary Table for tracking of acres managed in each basin and list of sales in Basin Plans.

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 had an initial review with the ODF Northwest Oregon Area Biologist. Another review will be conducted to determine final survey requirements.

It was initially determined that there is potential marbled murrelet habitat within and adjacent to the sale boundary. Surveys will be conducted during the 2006 and 2007 survey season for marbled murrelets. All surveys for marbled murrelet were and will be conducted in accordance with Pacific Seabird Group (PSG) protocol.

It was initially determined that there is potential northern spotted owl habitat within and adjacent to the sale boundary. Surveys will be conducted during the 2006 and 2007 survey season for northern spotted owls. All northern spotted owl surveys were and will be conducted in accordance with USFWS endorsed protocol.

T & E Fish species: See Sections VII, and IX for listed fish protection measures.  
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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 bands of steep slopes throughout the sale area. The initial hazard and risk assessment from the geotechnical specialist is moderate. The geotechnical specialist will be consulted during field to determine if a field visit is needed.

Approximately 474 net acres of the sale are within the Cook Creek sub-basin and 489 with in the South Fork Salmonberry sub-basin. The most current SAH Strategies will be used at the time of contract development. See the Summary Document for more information.

**X. RECREATION RESOURCES:**

The sale area is designated as Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator. There are two motorized trails located within the sale area that are identified as designated trails. Short term closure of these trails may occur to facilitate logging and public safety. Portions of trails will be improved for logging access. Slash will be removed from the OHV trails upon completion of the operation. A plan will be developed to advise the public when trails are closed due to harvest activity. The District Recreation coordinator will be consulted during sale layout.

**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 3, low sensitivity. No scenic impact is expected

**XIII. OTHER RESOURCE CONSIDERATIONS:**

An easement will need to be obtained from Hampton for access off of their property to the east of the sale boundary. There are also 5 corners in the sale area that will be located and protected from harvest activities.

**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.

These areas also contain Focused Stewardship, Wildlife Habitat, which in this case identifies that the sale is in a Salmon Anchor Habitat basin. Refer to sections Section VII, Aquatic Resources and Water Quality and Section IX, for management guidelines to be utilized.