

# Pre-Operations Report

**Operation Name: Toll Shanty**  
**County: Tillamook**  
**Management Basin: Trask**

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

Area	Type of Operation	Gross Acres	Net Acres <sup>1</sup>
1	RC	161	153
2	MC	276	270
Total		437	423

<sup>1</sup> The net acres are based on orthophotos and GIS and exclude roads, stream buffers (special stewardship), other stream buffers and reserve areas.

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

Slopes have a varied aspect and range from 5% to 90%. Elevations range from 800 to 1700 feet. The major soil type is Waseco (95%) with a minor soil type of Rye (5%).

The sale is located above Bark Shanty Creek on and below the ridgeline dividing the North and South Forks of the Trask River. The slopes are gentle and moderate at and near the ridgeline and typically steeper at the lower end of the sale area. The underlying rock is mostly igneous origin rocks of Siletz River Volcanics Formation, submarine and suaerial basalt breccia, and basaltic sandstone. Most of the upper slopes and the northwest portion of the sale are have underlying rocks that are sedimentary origin rocks of the Yamhill Formation massive to thin-bedded dark gray siltstone commonly associated with tuff beds and thin sandstones.

## **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	RC	323	DF/RA	43	14/14	172	167	46	44
		324	DF/RA	43	13/14	188	194	51	109
		Target <sup>3</sup>	DF		18	40	23	10	153
2	MC	323	DF/RA	43	14/14	172	167	46	44
		324	DF/RA	43	13/14	188	194	51	172
		325	DF/RA	43	14/14	120	113	32	54

<sup>1</sup> The source of stand inventory information is from field reconnaissance cruise plots taken in 2004.

<sup>2</sup> The net acres are based on orthophotos and GIS and exclude roads, and stream buffers (special stewardship), other stream buffers and reserve areas. Modified clear cut acres are not contiguous and do not exceed 120 acres.

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

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

The sale areas burned in the Tillamook, Saddle Mountain and North Fork/Elkhorn Fires. The sale areas were seeded in 1952-53, portions re-seeded in 1961-62 or planted in 1960-61. Portions of these areas were commercially thinned in 1996.

The stands in the sale areas are classified as 100% CSC according to the district stand summary information (1999). The stand is characterized by a single conifer species, and a single hardwood species concentrated in draws and headwalls. There is little brush development and little natural regeneration under the closed canopy.

**See Table 2 for specific stand data.**

The Douglas-fir has Swiss needle cast (SNC) symptoms and poor live crown ratios resulting in slowed diameter and/or height growth. The stands have been mapped by aerial surveys in each of the last three years.

There is scattered hemlock and alder throughout the sale. The alder components of these stands were aeriually sprayed to release planted 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, salmonberry or Oregon grape. The brush is patchy and does not form a continuous floor cover. The brush is confined to streams and openings.

There are some large snags in various states of decay and/or some hard snags created from (wind, snow, and/or bear damage). 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 and slash from recent partial cut activity in Area 2.

### III. DESIRED STAND CONDITION:

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	323	CSC	UDS	GEN/LYR	39/4
1	324	CSC	REG	GEN/LYR	73/36
2	323	CSC	REG	GEN	44
2	324	CSC	REG	GEN/LYR	122/50
2	325	CSC	REG	GEN/LYR	44/10

<sup>1</sup> 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.

#### **Regeneration Harvest:**

Areas 1 and 2 are not expected to develop complex stand structure due to decrease growth caused by SNC infection. By conducting a final harvest at this time and planting a mix of species under the remaining canopy, opportunities for complex structure in the future will be increased.

Treatment of 2 areas will create a mosaic over 437 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 unit.

As the future stand is established and matures the residual trees from these treatments will add to complexity of sizes, species and densities. These trees will also add to snags and down wood over time and through the life of the stand.

Stand Level Inventory (SLI) will be scheduled for clearcut and regeneration harvest units five to seven years after stand establishment. This inventory will provide more data on down wood and snags in the harvest units. If the stands are deficient in either category more may be created.

### IV. PROPOSED MANAGEMENT PRESCRIPTION:

**See table 2 for prescription targets**

#### **Modified Clearcut:**

In Area 2, Douglas-fir and merchantable alder will be removed. All other species will be reserved. An average of 5 to 8 trees per acre will be left. These residual trees will provide future down wood and/or snags.

**Retention Cut:**

In Area 1, an average residual basal area will be at least 33 square feet, primarily in Douglas fir. Douglas fir and merchantable alder will be removed. All other species will be reserved.

Understory vegetation will be enhanced by the additional growing space available in previously unthinned portions.

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

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

A variety of methods will be used to achieve green tree retention requirements. These residual green trees will supplement the future stand by promoting growth of dominant/co-dominant leave trees. 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. Additional amounts of leave trees will be located adjacent to the sale areas on steep slopes and along draws.

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 possible in harvest units with the expectation they will become short term snags and down wood. Areas of ground yarding will allow of tops of trees to be left in the unit instead of on landings and along roads.

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.

**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)	4700	304	5004
Stumpage Value (\$/MBF)	\$232.74	\$231.58	
Estimated Gross Value	\$1,093,900	\$70,400	\$1,164,300
		Project Costs:	\$131,000
		Estimated Net Value:	\$1,033,300

## VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Toll and Eagle Hill Roads. These are currently all weather, crushed rock roads. See maps for specific road locations and conditions.

Approximately 0.9 miles of existing surfaced and 0.3 miles of abandoned road 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*.

Approximately 0.5 miles of road will be constructed to provide access to cable yarding areas and reforestation. Following harvest, roads within the sale areas will be reviewed for closure. See summary document for more information on this topic. Currently the spur roads in the area are closed during general hunting seasons.

The operation will be 59% cable yarding and 41% ground yarding in Area 1. The operation will be 64% cable yarding and 36% ground yarding in Area 2.

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

Activity	Mainline	Collector	Rocked Spur <sup>1</sup>	Dirt Spur <sup>1</sup>
Construct	0	0	0.5	0
Improve	0	0	1.2	0.2
Maintain <sup>2</sup>	3.0	1.3	0	0
Close/Block <sup>3</sup>	0	0	1.2	0.2
Vacate <sup>3</sup>	0	0	0	0.5

<sup>1</sup> 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

<sup>2</sup> 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.

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

<sup>4</sup> The numbers in this table reflect planned Project Work associated with the sale.

## VII. AQUATIC RESOURCES AND WATER QUALITY:

Bark Shanty Creek is a large Type F streams that is adjacent to the sale area. There is a small Type F stream that is adjacent to the sale area. There are several unnamed small perennial and seasonal Type N streams within the sale areas. 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 begins. Streams of unknown status will be treated as Type F until surveys are completed to verify fish use.

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.

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. Surveys for marbled murrelets or northern spotted owls are not required for Toll Shanty, due to the absence of potentially suitable habitat.

T & E Fish species: See Sections VII 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 risk is this northern portion of the sale is low. The initial assessment by the geotechnical specialist for the southeast two thirds of the sale area is high. The geotechnical specialist will review the sale in the field. If the sale boundaries are changed prior to field review, the geotechnical specialist may be consulted and the need for field review may be reassessed.

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

OHV trails are present within the sale areas. Short term closure of these trails may occur to facilitate logging and public safety. 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.

Recreational use common to this area includes hunting and OHV use.

**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:**

SNC survey plot # T32389 is located in Area 1.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

**Table 6. Land Management Classification Summary**

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
1	Aquatic and Riparian	38	0
1	Recreation	34	0
1	Wildlife Habitat	2	0
2	Aquatic and Riparian	67	1
2	Recreation	11	0
2	Wildlife Habitat	3	0

This table summarizes the acres of Focused and Special Stewardship within the operations. The acres in each operational area in this table do not necessarily add up to its gross or net acres, because of overlapping classifications under the Land Management Classification System (Feb. 2003). For example, a particular acre can be classified as Focused Stewardship for Aquatic and Riparian, Recreation, and Scenic resources.