

# Pre-Operations Report

**Operation Name: Norriston Combination**

**County: Clatsop**

**Management Basin: Scattered**

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

Area	Type of Operation	Gross Acres	Net Acres
1	PC-M	59	54
2	MC	34	29
3	MC	30	27
4	PC-M	99	89
5	MC	17	15
Total	Modified-Clearcut	81	71
Total	Partial Cut	158	143
Total		239	214

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

The sale area is located in the Scattered Basin, just east of U.S. Highway 101, about 1/2 mile inland from the Pacific Ocean, south of Cannon Beach. It is in the "hemlock zone" and is characterized by hemlock as the dominant tree species, with understory mostly of ferns.

Elevations range from 200 to 850 feet. The unit straddles a northeast trending ridge. The majority of the unit lies north of the ridge and consists of gentle to moderate slopes that drain to the northwest and west toward the Pacific Ocean. A few isolated sections of steep slope, 80% or steeper, are located here as well. The southeast corner of the unit is located in the Fall Creek drainage. Numerous sections of steep slope, 80% or steeper, are located here. The area is underlain primarily by sedimentary rocks, thin bedded to massive mudstones and fine grained sandstones of the Cannon Beach and Angora Peak Members of the Astoria Formation. The ridge running through the unit is formed by igneous rock, invasive intrusive basalt of the Grande Ronde Formation.

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

This naturally regenerated hemlock stand is present in all sale areas, and resulted from advance regeneration on site during clearcut harvesting of this area during the mid-1950's. The current stand is very overstocked and has been self

thinning for some time. The current stand averages 12-13 inches DBH, with stand densities in the 60-75% range.

There are approximately 1.9 snags per acre exceeding 24 inches in diameter, and approximately 200 cubic feet of downed wood (Decay Class 1 and 2) and 6,800 cubic feet of downed wood of all decay classes in these areas. This stand was inventoried in 2002 and classified as “closed single canopy”.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Acres <sup>2</sup>
1	PC-M	24157	WH, SS	56	13	252	256	68	54
		Target <sup>3</sup>	WH, SS		16	180	150	35-40	54
2	MC	24157	WH, SS	56	13	252	256	68	29
		Target <sup>3</sup>	WH, SS, WRC				8		29
3	MC	24157	WH, SS	56	13	252	256	68	27
		Target <sup>3</sup>	WH, SS, WRC				8		27
4	PC-M	24157	WH, SS	56	13	252	256	68	89
		Target <sup>3</sup>	WH, SS		16	180	150	35-40	89
5	MC	24157	WH, SS	56	13	252	256	68	15
		Target <sup>3</sup>	WH, SS, WRC				8		15

1 The source of stand inventory information is SLI from 2002.

2 The acres are based on (orthophotos, traverse, GIS, GPS, etc) and exclude roads, streams buffers, reserve areas, etc.

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

### **III. DESIRED STAND CONDITION:**

None of the sale areas have a complex current condition, except for the western portion of Area 4, which has 23 acres planned for “Layered” (LYR). The planned harvest prescription should advance this area toward an “Understory” condition, by permitting more light to reach the forest floor, allowing development and growth of hemlock seedlings and shrub species.

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>2</sup>	Desired Future	Acres
1	24157	CSC	UDS	General	54
2	24157	CSC	REG	General	29
3	24157	CSC	REG	General	27
4	24157	CSC	UDS	General	66
4	24157	CSC	UDS	LYR	23
5	24157	CSC	REG	General	15

<sup>2</sup> The stand is expected to develop into this condition in the five to ten years after this operation is completed.

#### **IV. PROPOSED MANAGEMENT PRESCRIPTION:**

Areas 2, 3, and 5 - are planned for regeneration harvest (modified clearcut) and will be replanted with a mixture of conifer species.

Areas 1 and 4 - The proposed management prescription, to develop a UDS structure, is to thin this stand to an SDI of 35-40%, about 180 to 200 square feet of basal area. This thinning should open the tree canopy sufficiently to allow development of understory hemlock and some brush species. It is anticipated that thinning trees of this age and density along the coast will result in some trees blowing down. The resulting blowdown patches will also contribute to understory development. A second entry will be needed to allow portions of Area 4 to continue to develop horizontal and vertical structures necessary complex stands.

*Snags:* In all areas, all existing snags will be retained unless deemed to be safety hazards. Due to existing snag populations in Areas 2, 3, and 5, it is not anticipated that snag creation will be necessary. Snag retention will be emphasized during sale layout and coordinated with green tree retention marking practices to protect existing snags. In PC areas, it is anticipated that additional snags will develop during yarding activities by leaving, topping, or girdling damaged rub trees, tail trees, lift trees, and/or intermediate support trees.

*Green Trees and Downed Wood :* In Areas 2, 3, and 5, an average of 8 green trees per acre will be retained using multiple wildlife tree strategies, including scattering and/or clumping green trees throughout the areas, and not solely located in riparian areas. It is anticipated that some of these trees will blow down or “snap-out”, thereby adding to the snag population and downed wood levels. Minor species such as red cedar and any existing larger remnant trees will be reserved from cutting. All existing down wood will be retained. It is anticipated that normal felling and bucking practices will meet and/or exceed 600 cubic per acre of downed wood. Non-merchantable log segments suitable for downed wood will be bucked out prior to yarding.

## V. ESTIMATED TIMBER AND REVENUE INFORMATION:

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%	<input type="checkbox"/>	4
Planned Quarter:		3 <sup>rd</sup>	

	Conifer	Hardwood	Total
Net Volume (MBF)	3,560	0	3,560
Stumpage Value (\$/MBF)	\$250	\$0	
Estimated Gross Value	\$890,000	\$0	\$890,000
		Project Costs:	\$131,000
		Estimated Net Value:	\$759,000

## VI. HARVESTING AND ACCESS CONSIDERATIONS:

Access for this sale area is secured through a permanent easement with Weyerhaeuser Company on the Hug Point Road and Hug Point 20 Road. A cost-share project between ODF and Weyerhaeuser constructed a road across the dominant ridgetop, which accesses much of the sale area. It is anticipated that an additional 1.5 miles of working spurs will be constructed to access the remainder of the sale area.

When this area was harvested in the 1950's, there was a highway approach onto Hwy. 101, with numerous spur roads branching off this main stem. The highway approach was very steep, crossed private property, and roads were steep, with numerous stream crossings and midslope locations. Existing old "legacy" roads will be evaluated for vacating, and the old stream crossings removed and restored to pre-road conditions.

One spur accessing Area 4 may require crossing the top of gentle headwall. The remainder of the proposed new roads are relatively short spurs and are generally located along ridge tops. The new rocked roads into the partial harvest areas will be needed for future harvesting entries, and will remain open upon completion of harvesting activities. Access to Area 5 may require an easement from Weyerhaeuser to construct a temporary dirt road.

Other alternative access routes would require larger stream crossings, and were considered environmentally and economically unfeasible. Multi-span cable yarding (long line) systems from the existing roads and helicopter yarding were also analyzed. These alternative harvesting strategies were determined to be economically unfeasible and provided minimal additional resource protection. The road rock for this sale is available at the existing HP20 Quarry on Weyerhaeuser property, and is secured through the cost-share agreement.

The project work for this sale is estimated to cost approximately \$131,000.

Approximately 80% of the sale area will be cable logged, as the slopes are moderate to steep. Ground based harvesting systems will be utilized on the more gentle slopes. Cable yarding can be done with medium size yarders. Tractor logging can be done with shovel loggers, track or wheel skidders.

**Table 5. Transportation Planning Summary (Miles).**

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0.0	0.0	1.5	0.5
Improve	0.0	0.0	0.0	0.0
Maintain	2.0	1.0	1.5	0.0
Close/Block	0.0	0.0	0.0	0.0
Vacate	0.0	0.0	0.0	1.5

**VII. AQUATIC RESOURCES AND WATER QUALITY:**

*Type F Streams:*

Fall Creek (medium, Type N stream) flow northwesterly through the southeast corner of Area 1.

All of the streams flow in a westerly direction to the Pacific Ocean.

*Type N Streams:* There are small perennial Type N streams in all sale areas. NW Oregon Forest Plan stream riparian strategies will be employed along these streams.

The current riparian vegetation is composed primarily of dense conifer. The understory in the conifer dominated reaches is similar to the headlands, with almost no understory vegetation.

*Type D Streams:* An unnamed creek located in between Areas 2 and 4 has registered water rights, with the domestic water intakes located above and below the property line. A large Green Tree Retention Area (GTRA) will be utilized in Area 2 upslope of this resource to provide additional protection. No activity will take place within 25 feet of the stream in Area 4.

All streams will be examined during sale layout to determine stream type and classification. Then, the specific RMA strategies required in the FMP will be implemented. These strategies are found in Appendix J, pages J-1 through J-16.

All the perennial streams within the operational area of the sale have a LMCS Aquatic and Riparian classification of focused.

None of the sale areas is within proximity of streams in which listed fish are present, as Hwy 101 presents a barrier to fish passage.

*Stream Enhancement Opportunities:* There no known opportunities for stream enhancement on Fall Creek. Further assessment and collaboration will be done with ODFW biologists and the Sunset Unit Forester.

*Aquatic Resource Protection:* For all areas, full log suspension is required when cable yarding over streams. No ground-based logging equipment operation is allowed within the stream bank zone. Adequate RMA buffers will be left where required on all streams per the FMP standards. To protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods range from use of hay bales in road ditches, to “ditch-outs” away from streams, to complete shutdown of logging and hauling operations during times of heavy rainfall. There are no known high risk sites within the sale area. Any high-risk sites found will require at least one-end log suspension and cable logging.

## **VIII. T&E SPECIES CONSIDERATIONS:**

The ODF Northwest Area Biologist determined the sale area did not contain suitable habitat for Northern Spotted Owls, on April 16, 2001.

The sale area and adjacent suitable habitat was surveyed for Marbled Murrelets in 2001, 2002, and 2003. In 2001, portions of the sale area were surveyed for Marbled Murrelets, which resulted in one detection, in the form of a “flyover”, but no “occupied behavior.” Further surveys were conducted in 2002 and 2003, with no detections within the proposed sale area. However, detections in an older stands north of the sale area resulted in the establishment of the Hug Point Marbled Murrelet Management Area (MMMA). There were no surveys conducted in 2004. The sale area was surveyed again in 2005, with one “flyover” in Area 1, but no “occupied behavior,” and is scheduled to be resurveyed in 2006.

The sale area was checked against district knowledge for any listed plant location. The sale area was also checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations. No listed plant records were identified within the sale area.

**IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:**

The initial assessment of hazard and risk is low for those portions of the unit north of the ridge running through the unit, and moderate for those portions located in the Fall Creek drainage. The Area geotechnical specialist reviewed a possible area of concern identified on the topographic map which showed a confined stream channel above Hwy. 101. A field visit to the site showed that there were no immediate downstream structures and that there is low risk to life posed by any harvesting in the proposed area.

**X. RECREATION RESOURCES:**

This area receives little or no recreation use due to limited access. This proposed timber sale is not expected to have any measurable effects on recreation in the area.

**XI. CULTURAL RESOURCES:**

There are no identified cultural resources within the operation areas.

**XII. SCENIC RESOURCES:**

Upslope portions of the planned sale may be visible from Highway 101. Area 4 has a "focused" visual classification, but since this is a partial cut, no visual impact is anticipated. Area 2 also has a "focused" visual classification. The visual impacts to Highway 101 will be mitigated by establishing a GTRA within this portion of the sale area.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

None.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

The lands in this timber sale are all classified "general" management. Within this overlay are 20 acres of "focused" Visual classification for Highway 101.