

# Pre-Operations Report

**Operation Name:** Lookout Below  
**County:** Linn  
**Management Basin:** Rock Creek Basin

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

Area	Type of Operation	Gross Acres	Net Acres
I	Modified Clearcut	100	96
II	Partial Cut	11	10
III	Partial Cut	28	28
<b>Total</b>		<b>139</b>	<b>134</b>

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

The operation is located within a temperate climate area. Typically the fall and winter seasons are wet. This area receives approximately 89 inches of rainfall per year. The operation is located within the *Tsuga heterophylla* Zone (Natural Vegetation of Oregon and Washington, Franklin & Dyrness, 1973).

The landforms are gentle ridgeline and moderate to very steep slopes below Tom Rock and above two un-named branches of Rock Creek. The underlying rock in sale area are igneous origin rock Lava flows and flow breccia of andesite, basaltic andesite, and basalt also includes interbedded volcanoclastics.

The slopes in the operation range from 30% to 100%. The soils are Pechuck soils. The 50 year site index for Douglas-fir is 107 feet. The elevation ranges from 2,300 to 3,180 feet. This unit has a north facing aspect.

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

The majority of Area I and all of Area III are located within a dense 74-year-old stand currently classified as Closed Single Canopy. The overstory consists of Douglas-fir and western hemlock. The understory contains small amounts of ferns and vine maple. There is a total of 6,883 cubic feet of down wood per acre and 13 snags per acre within the stand; there is 1,287 cubic feet of sound down wood per acre within the stand (SLI 2002).

In January 2000, the northern-most portion of Area I (13 acres of stand 12608) was affected by a strong windstorm. Prior to the storm, the stand Relative Density (RD) was 61, and the stand was scheduled to be thinned as part of a larger sale. After the storm, 60 percent of the stand had a RD of 35 or less, and the remainder of the stand varied from a RD of 40 to 61. The turbulence of this winter storm resulted in the down trees falling in different directions. In addition to knocking trees down, the storm also snapped the tops out of approximately 25% of the trees, and left 15% of the trees leaning at precarious angles. Another storm in February 2002 inflicted additional damage on this weakened stand: more trees were blown over, and fell on top of the trees that were already down. A salvage sale was scheduled for this area, but acreage considerations resulted in these 13 acres being dropped. Although the salvage value has been lost, the stand needs to be managed.

Area II is located within a 70-year-old western hemlock stand which is currently classified as Understory. The overstory consists of a mix of western hemlock, Douglas-fir, red alder, western red cedar and big leaf maple. The understory consists of salmonberry, vine maple and sword ferns. There are currently 5 snags per acre greater than 12 inches in diameter located within the stand; there are approximately 300 cubic feet per acre of sound down wood and 5,800 cubic feet per acre of down wood in all decay classes within the stand (SLI 2002).

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Acres <sup>2</sup>
I	MC	Target <sup>3</sup>			27	35	6	5	
		12641	DFWH	74	14	235	220	63	83
II	PC-M	Target <sup>3</sup>			17	97	78	30	
		12540	CXWH	70	15	188	145	48	11
III	PC-M	Target <sup>3</sup>			19	142	69	30	
		12641	DFWH	74	14	235	220	63	28

1 The source of stand inventory information is SLI from 2002. Inventory for stand 12608 is from the 1999 Tom Rock Ridge sale cruise data.

2 The acres are based on GIS and include 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:

The desired future condition for the majority of this operation is in a general stand category as shown on Map B. There is 8 acres that has a DFC of Layered. It is the District's intent to change the DFC for this 8 acres into general and to place 8 additional acres of Layered somewhere else on the Landscape. This change will

take place during the next Implementation Plan period. This operation is a modified clearcut with some moderate partial cutting.

The anticipated pathway for Area I is as follows:

- this area will receive a modified clearcut as part of this operation,
- the area will be promptly reforested and be reclassified as Regeneration,
- the area will be periodically checked to determine if interplanting or vegetation management needs to occur,
- when this stand reaches approximately 10 years of age, it will be evaluated for possible pre-commercial thinning opportunities.

The anticipated pathway for Areas II and III is as follows:

- These areas will receive moderate partial cuts which will improve the growing condition for the residual trees,
- In approximately 15 years, these areas may be candidates for final harvest.

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Acres
I	12641	CSC	REG	GEN	83
	12608	UDS	REG	GEN	9
		UDS	REG	LYR	8
II	12540	UDS	UDS	GEN	11
III	12641	CSC	UDS	GEN	28

<sup>1</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:**

Area I will receive a **modified clear cut**. Approximately 5 to 7 green trees per acre will be retained within the unit. The trees will be left along streams and also as scattered clumps within the unit. To prepare the site for reforestation, planting spots will be created with either a walking excavator or by hand. The area will be replanted with Douglas-fir. Western red cedar will be planted along the streams with a few scattered along the hillside.

Areas II and III will receive a **moderate partial cut**. This will be a moderate thinning to a residual SDI of 30%.

**Existing down wood will be retained** within all three areas. **Snags will be retained** that do not pose a safety hazard, but some snags will be felled during the operation. The objective is to retain all of the snags, with a minimum of 2 snags per acre will be within the stand at the completion of harvest. Due to the amount of existing sound down wood within the unit, **no new down wood will be developed** with this operation.

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

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	x
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	2,886	21	2,907
Stumpage Value (\$/MBF)	350	150	
Estimated Gross Value	\$1,010,100	\$3,150	\$1,013,250
		Project Costs:	\$95,900
		Estimated Net Value:	\$917,350

**VI. TRANSPORTATION PLANNING AND HARVESTING:**

This operation has good ridge top access to facilitate a cable yarding operation. The side slopes range from flat to 100% over the operation. Two or three landings will be utilized for cable logging settings. The upper portion of the sale is flatter and will facilitate ground logging where slopes are generally less than 35%. The ground yardable area is planned to be thinned and the cable ground will be clear-cut.

Mainline roads provide access to within a 1/4 mile of the operation. These roads have a crushed rock all weather surface that needs a maintenance lift of rock. A spur road provides the last 1/4 mile access to the operation boundary. A 1,300-foot spur and a 400-foot spur will be constructed on the ridge top to access new landing locations. The new roads will have a 16 foot subgrade with ditch and rock surfacing to allow for winter logging and public use. The South Rock Creek road will have a 3 inch maintenance lift of 1"-0 crushed rock spread from the end of the pavement on Shepards Lane up to the junction of the TR 500 road.

**Required Project work:**

- Construct 1700 feet of spur road & surface w/ pitrun or 4"-0 rock @cost of \$13,000
- Resurface South Rock Creek road from Shepards Lane to junction with TR 500 road. This is 3.83 miles of mainline road to resurface with a 3 inch lift of crushed rock and will take 4,300 cubic yards of rock @ a cost of \$64,500.
- Create a stockpile at the Tom Rock pit with 1,500 cy @ a cost of \$18,000.

- Vacate the one short newly constructed roads (0.1 miles) at sale completion @ cost of \$400, keep the other road & landing for future helicopter use.

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

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0.32	0
Improve	0	0	0	0
Maintain	8.3	0	0.32	0
Close/Block	0	0	0.32	0
Vacate	0	0	0	0

\* For determination of road class either use results of the Harvest and Habitat roads classifications, or if this information is not available then low use roads are spurs, medium use roads are collectors and high use roads are mainlines. Use these same criteria when comparing the total for all AOP sales to the IP plans.

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

This operation is not in proximity to any streams where listed fish are present.

There are three small perennial non-fish bearing streams located within and adjacent to the operation. These streams flow into the West Fork of Rock Creek. The riparian vegetation consists of Douglas-fir and western hemlock in the overstory. Vine maple, Oregon grape, and ferns can be found in the understory.

Management activities within riparian areas of streams will focus on achieving properly functioning aquatic and riparian habitat conditions over time. Riparian Management Areas (RMAs) will be established immediately adjacent to streams for the purpose of protecting aquatic and riparian resources and maintaining the functions and ecological processes of the streams. The Management Standards for Aquatic and Riparian Areas found in the *NWO State Forests Management Plan* (pg. J-1 – J-16) will be followed within these RMAs.

This operation is located within the City of Salem’s watershed. The North Santiam River is the primary drinking source for residents in Salem. Water from the river is processed using large slow sand filters. The slow sand filtration process is unable to treat water with turbidity levels greater than 10 NTU. (an NTU is a unit of scientific measurement that describes the extent of discoloration due to suspended sediment.) The District has a long history of cooperation with the City of Salem on matters related to water quality. Generally speaking, representatives from the Public Works Division review all of the pre-operation reports for activities located within the watershed. Most of these areas are also visited on the ground to further review and discuss strategies related to maintenance of water quality. Suggestions offered for mitigation of potential

impacts to water quality are carefully considered and incorporated into timber sale contracts when appropriate.

The following measures will be used to minimize impacts to streams: 1. No ground based equipment will be allowed within 25 feet of the streams, 2. There will be seasonal restrictions as to when ground yarding and road construction will be allowed (i.e. during dry seasons), 3. Erosion control measures will be used on areas of soils exposed during road construction or improvement, 4. In the cable portions of the operation, one end suspension of logs during yarding will be required, 5. Road ditches will be disconnected from streams, 6. Road maintenance will be required during log hauling.

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

This operation was surveyed for Northern Spotted Owls with no response during the 2002 survey season. In the 2003 and 2004 survey seasons, responses were heard from a non-territorial single owl. No habitat protection is required for non-territorial owls. If the owl were to become classified as a “resident”, then a biological assessment would be prepared by the NWO area biologist. The operation will be surveyed again during the 2005 survey season.

The operation was checked against the Oregon Natural Heritage Program’s database of known plant locations. The operation was also checked against district knowledge for any listed plant location. No records of threatened, endangered, rare or candidate plant species were found within the operation.

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

The initial assessment from the geotechnical specialist is high, due to the very steep slopes in the upper portion of Areas I and II while the assessment is low and for Area III. 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:**

While there are no developed recreational resources within or in close proximity to this operation, hunting, sight seeing and horseback riding do occur in the area. There may be some delays on the Tom Rock Road due to road work or logging, but through traffic and public access should not be impeded by the operation.

**XI. CULTURAL RESOURCES:**

The old Tom Rock Lookout site was located off of the TR 700 road. The old Tom Rock Cabin site was located on the Tom Rock Ridge road just west of junction with the TR 1200 road. These areas should not be adversely impacted by this operation.

**XII. SCENIC RESOURCES:**

The majority of the operation is located within a focused visual area according to the District's Land Management Classification. This area can be seen from Highway 22. This area has a visual classification of moderate sensitivity according to table 4-4 in the Northwest Oregon State Forests Management Plan, January 2001. (pg. 4-107) The thinning areas, stream buffers and green tree retention clumps will help break up the visual impact from the clearcut.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

There are no other resource considerations.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

**Table 6. Land Management Classification Summary**

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
I	Aquatic and Riparian Habitat	8	4
	Visual	100	0
II	Visual	11	0
III	Visual	15	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. For example, a particular acre can be classified as Focused Stewardship for Aquatic and Riparian, Recreation, and Scenic resources.