

Pre-Operations Report

Operation Name: Zeus's Boots

County: Clatsop

Management Basin: McGregor

Legal Description: Sec 31, T04N, R05W, W.M.
Sec 36, T04N, R06W, W.M.

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	Modified Clearcut	50	49
V	Modified Clearcut	29	27
Total	Regeneration Harvest	79	76
II	Moderate Partial Cut	24	23
III	Moderate Partial Cut	116	110
IV	Moderate Partial Cut	67	64
VI	Moderate Partial Cut	3	3
VII	Moderate Partial Cut	3	3
Total	Partial Cut Harvest	213	203

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a southerly aspect and range from 10% to 65%. Elevations range from 1000 to 1300 feet. The major soil types are Keasey and Pinochle. The sale areas occupy the ridges to the lower slopes.

The landforms are gentle to moderate slopes on and below the spur-ridge divides of several unnamed tributaries of the North Fork of Wolf Creek. The underlying rock is sedimentary origin Cowlitz Formation, basaltic, marine sandstone.

II. CURRENT STAND CONDITION:

The sale areas have been inventoried using the Stand Level Inventory (SLI) procedure and the stand has been classified as 100% UDS.

The stand is composed almost entirely of Douglas-fir. Many trees have poor live crown ratios and poor height to diameter ratios.

None of the sale areas have had prior stand management.

The stands contain significant amounts of *Phellinus weirii* and will be treated at time of harvest.

The understory in all the sale areas is comprised primarily of vine maple, sword fern, salal, dwarf Oregon grape, and huckleberry. Average ground cover throughout all areas is estimated to be approximately 90% based on SLI data.

There are moderate amounts of hard snags and down woody debris, in decay classes 0,1 and 2, created from *Phellinus weirii*. There is an estimated 2- 4 hard snags per acre (12" DBH +) and 600 ft³ of DWD. Estimates are based on SLI data.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
I	MC ⁴	7244	DF	49	16	249	182	62	49
II	PC-M ⁴	7244	DF	49	16	249	182	62	23
		<i>Target</i> ³			20	140	65	31	23
III	PC-M	7241	DF	51	19	232	123	53	59
		7245	DF	54	17	234	156	57	41
		7246	DF	48	18	177	100	42	10
		<i>Target</i>			20	140	65	31	110
IV	PC-M	7238	DF	53	17	112	146	35	64
		<i>Target</i>			20	140	65	31	64
V	MC	7238	DF	53	17	112	146	35	7
		7250	DF	56	17	218	136	33	20
VI	PC-M	7250	DF	56	17	218	136	33	3
		<i>Target</i>			20	140	65	31	3
VII	PC-M	7250	DF	56	17	218	136	33	3
		<i>Target</i>			20	140	65	31	3

¹ The source of stand inventory information is from SLI in 2004.

² The acres are based on GIS and exclude existing and planned roads, stream buffers, non-thinnable areas and green tree retention areas. Clear cut acres are not contiguous and do not exceed 120 acres

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

⁴ MC is Modified Clearcut, PC-M is Moderate Partial Cut,

III. DESIRED STAND CONDITION:

The harvest operation will develop Areas I and V into REG structure in the short term. Areas II, III, IV, VI, and VII will remain as UDS in the short term. According to the Forest Grove District's landscape design for the McGregor basin, the desired future condition (DFC) for Areas I-V is GEN. Areas VI and VII have a DFC - OFS.

The anticipated management pathway for Areas VI and VII is to conduct a 1st entry operation for density management. Reducing the SDI, by harvesting some

of the conifer, will maintain vigorous growth of the overstory. A 2nd entry 15-20 years after the 1st entry will keep the two areas on their pathway toward OFS.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
I	7244	UDS	REG	GEN	49
II	7244	UDS	UDS	GEN	23
III	7241	UDS	UDS	GEN	59
	7245	UDS	UDS	GEN	41
	7246	UDS	UDS	GEN	10
IV	7238	UDS	UDS	GEN	64
V	7238	UDS	REG	GEN	7
	7250	UDS	REG	GEN	20
VI	7250	UDS	UDS	OFS	3
VII	7250	UDS	UDS	OFS	3

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.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

Partial Cut - Moderate:

Areas II, III, IV, VI and VII are PC-M, with a target SDI of approximately 31.

Douglas-fir will be selected for harvest. All other species will be reserved. The stand will be thinned to a target basal area of 130 to 150 square feet. The average DBH of the residual stand will be approximately 20 inches. Residual trees will be the trees that have the largest DBH and height, and are of the best form and vigor. All trees less than 8 inches shall be reserved and shall not count toward the target basal area.

Understory vegetation will be enhanced from the additional growing spaces made available by thinning the overstory.

Modified Clearcut:

In Areas I and V, the majority of trees within the posted area will be harvested.

A variety of methods will be used to achieve green tree retention requirements, which include green tree retention areas, stream buffers, protection of precipitous slopes, and trees scattered across the sale areas. These methods will be used in combination to meet the green tree requirements of (5 to 9 trees per acre) provided in the Forest Management Plan (FMP).

Green tree retention for this sale is expected to meet the target objective of 9 trees per acre. From these residual green trees, 2 trees per acre shall be topped

to create hard snags. Snags shall have a DBH of at least 18 inches, and be at least 60 feet in height.

After snag creation is completed, it is expected that enough green trees will be reserved to still meet the target objective. These trees will be a source for snags and DWD, which are expected to develop over time through natural processes.

All existing DWD will be reserved in the sale areas. DWD recruitment is expected through mortality, windthrow of residual trees, felled snags, and logging slash.

Existing snags determined not to be a safety hazard will be retained and any felled snags will be left for down wood.

Areas I and V will be planted with alder. Following harvest, the sale areas will be reviewed to determine if and what type of site preparation is needed.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter: 2			

	Conifer	Hardwood	Total
Net Volume (MBF)	5,200		5,200
Stumpage Value (\$/MBF)*	\$400		
Estimated Gross Value	\$2,080,000		\$2,080,000
		Project Costs:	\$180,000
		Estimated Net Value:	\$1,900,000

*Combined Douglas-fir and hemlock stumpage values

VI. TRANSPORTATION PLANNING AND HARVESTING:

The sale areas are accessed via North Fork Wolf Creek Road and through Longview Fibre ownership via the Sunset Grade Road. These are both all-weather, crushed rock roads. An access easement will need to be obtained from Longview Fibre. Road use fees will not apply.

Approximately 2.7 miles of road will be constructed through State land to provide access to cable yarding landing locations. New construction is limited to ridgetops and gentle to moderate sideslopes. An additional 0.4 miles of road through Longview Fibre ownership will require construction and surfacing. Proposed roads do not cross any perennial streams.

All haul roads will have high quality crushed rock or pit run surfacing. Roads will provide access to all timber within the sale area and allow for logging methods and hauling which will minimize impacts to soils, residual timber, streams, and riparian areas.

Following harvest on each setting during logging operations, roads and skid trails within the sale areas will be evaluated for closure.

Project work and their estimated costs: 3.1 miles of construction at \$180,000.

The operation will be 60% cable yarding and 40% ground based yarding.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	3.1	0
Improve	0	0	0	0
Maintain	0	6.5	0	0
Close/Block	0	0	0	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:

There are 3 unnamed small, Type F, streams within or adjacent to the sale area. Portions of the sale area are adjacent to the North Fork of Wolf Creek which is a large, Type F, stream. There are several unnamed seasonal, Type N, streams within the sale areas, which are tributary to the small, Type F, streams.

Riparian area stand types along these streams are generally hardwood/conifer mixed.

The haul route and logging operation is in proximity to streams (North Fork Wolf Creek) in which listed fish (Coho salmon) are present. Appropriate restrictions for hauling will be imposed to avoid occurrence of any negative impacts.

Stream buffers within harvest unit boundaries will be managed according to FMP 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 seasonal restrictions on logging and hauling operations. Culvert installment and replacement in live streams will be conducted between July 1 and August 31. Operations outside of this period will be reviewed with ODFW.

VIII. T&E SPECIES CONSIDERATIONS:

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist (Area Biologist).

Surveys for northern spotted owls were conducted in 2004 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Zeus's Boots was surveyed for spotted owls three times in 2004 with no responses, and the second year of survey will be completed in 2005. All surveys were/will be conducted in accordance with USFWS protocol.

Zeus's Boots was surveyed for marbled murrelets in 2004 due to the presence of potentially suitable murrelet habitat adjacent to the sale area. The presence of murrelets was not detected during the 2004 surveys. The second year of survey will be completed in 2005. All surveys were/will be completed in accordance with PSG protocol.

This operation involves an activity that is listed in the National Marine Fisheries Service (NMFS) adopted rules under Section 4(d) of the Endangered Species Act. The sale area is in close proximity to a stream with listed fish. In addition, the haul route crosses or is in close proximity to a stream with listed fish. See Section VII and IX of this report for a discussion of protective measures.

The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations, as well as against local records in the Land Management Classification System (LMCS). No listed plant records were identified within or adjacent to the sale areas.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The initial assessment from the geotechnical specialist is moderate. There are a few scattered steep slopes in areas 4, 5 & 6. The geotechnical specialist will be consulted during sale layout and the need for field review will be assessed

X. RECREATION RESOURCES:

The sale area is designated as non-motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). The District Recreation Coordinator has reviewed this sale, and suggests:

No authorized trails are located within or adjacent to the sale area.
Recreational use common to this area includes hiking and hunting.

XI. CULTURAL RESOURCES:

The sale area was checked against the Tillamook State Forest Cultural Resource Inventory database. No cultural resource records were identified within the sale area. If any significant cultural resources are located during sale preparation, the Public Use Coordinator (ODF Salem Staff) will be consulted regarding potential protection measures.

XII. SCENIC RESOURCES:

Portions of Areas I and V have a visual classification of Level 2, moderate sensitivity. Visual impact will be minimal due to the design of residual tree placement in the sale area.

XIII. OTHER RESOURCE CONSIDERATIONS:

Property lines have not been true blazed and posted.

All known survey corners and witness trees shall be protected from damage during any operations.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Table 6. Land Management Classification Summary. This table summarizes the acres of Focused and Special Stewardship within the operations. Due to overlapping classifications under the Land Management Classification System, the acres summarized for each operational area in this table may exceed the net or gross acreage of the area. For example, a particular acre can be classified as Focused Stewardship for Aquatic and Riparian Habitat, Recreation, and Scenic resources.

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
I	Aquatic and Riparian Habitat	11	0
	Visual	13	0
II	Aquatic and Riparian Habitat	5	0
	Visual	5	0
III	Aquatic and Riparian Habitat	24	0
	Visual	38	0
IV	Aquatic and Riparian Habitat	16	8
	Visual	37	0
V	Aquatic and Riparian Habitat	4	0
	Visual	29	0
VI	Aquatic and Riparian Habitat	1	1
	Visual	3	0
VII	Aquatic and Riparian Habitat	1	1
	Visual	3	0
VIII	Aquatic and Riparian Habitat	6	1