

Pre-Operations Report

Operation Name: Chazmo
County: Columbia
Management Basin: Wilark
Legal Description: Sec. 10,15,16 and 22, T05N, R03W, W.M.

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	Moderate Partial Cut	61	57
II	Heavy Partial Cut	65	61
III	Moderate Partial Cut	12	12
IV	Moderate Partial Cut	63	58
Total	Partial Cut Harvest	201	188

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 10% to 55%. Elevations range from 1200 to 1600 feet. The major soil types are Birkenfeld and Wauna. The sale areas mostly occupy the ridge tops to middle slopes.

The landforms are gentle to moderate slopes in the headwaters of Oak Ranch Creek on the divide with the Clatskanie River. The underlying rock is igneous origin rock of the Columbia River Basalt Group, Subaerial basalt and andesite lava flows and flow breccia.

II. CURRENT STAND CONDITION:

The sale area has had no prior stand management.

The sale area has been inventoried using the Stand Level Inventory (SLI) procedure and the stands have been classified as UDS.

The sale area is predominantly Douglas-fir. There is western hemlock, red cedar, and alder scattered throughout most of the sale area in various concentrations. There are various stand ages and some stands that are multi-cohort. The older stands are much more dense, with larger trees, compared to the younger stands.

Overall, the stands contain minor amounts of *Phellinus weirii* and will not 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, huckleberry, and bracken fern. Average ground cover throughout all areas is estimated to be approximately 90%, based on SLI data and field observation.

SLI data estimates an average of 8 snags per acre (12" DBH +) and 325 ft³ of DWD (all decay classes).

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
I	PC-M ⁴	7061	DF	60	16	180	137	45	13
		7062	DF	66	19	256	133	59	12
		7065	DF	96	20	311	151	70	32
		<i>Target</i> ³	<i>DF</i>		25	160	47	32	57
II	PC-H ⁴	7062	DF	66	19	256	133	59	61
		<i>Target</i> ³	<i>DF</i>		25	120	35	24	61
III	PC-M	7071	DF	95	25	269	80	54	12
		<i>Target</i> ³	<i>DF</i>		25	160	47	32	12
IV	PC-M	7085	DF	66	17	235	144	57	58
		<i>Target</i> ³	<i>DF</i>		24	140	45	28	58

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, and non-thinnable areas.

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

⁴ PC-M is Moderate Partial Cut, PC-H is Heavy Partial Cut.

III. DESIRED STAND CONDITION:

The harvest operation will leave these stands as UDS structure in the short term. According to the Forest Grove District's landscape design for the Willark basin, the desired future condition (DFC) for these stands is 100% LYR.

The anticipated management pathway for the sale area 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. Openings in the canopy will allow trees to develop in the understory and intermediate layers. This entry will allow all the stands to reach a layered condition more rapidly than if unmanaged. Overstory trees will reach a larger diameter range quicker and there will be more trees per acre in the 2-10 inch range.

All existing snags and down woody debris of all decay classes shall be retained. All trees less than 8 inches shall be retained. Hardwoods and all conifer species other than douglas-fir shall be retained. All of these components combined will maintain and promote biodiversity within the future stand.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
I	7061	UDS	UDS	LYR	13
	7062	UDS	UDS	LYR	12
	7065	UDS	UDS	LYR	32
II	7062	UDS	UDS	LYR	61
III	7071	UDS	UDS	LYR	2
		UDS	UDS	LYR	10
IV	7085	UDS	UDS	LYR	58

¹ The stand is expected to develop into this condition in the five to ten years after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

Partial Cut - Moderate:

Areas I, III, and IV are PC-M.

In Area I and III the target SDI will be 32. Douglas-fir will be selected for harvest. All other species will be reserved. The stands will be thinned to a target basal area of 160 square feet. The average DBH of the residual stand will be approximately 25 inches and 47 large trees per acre. 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.

In Area IV the target SDI will be 28. Douglas-fir will be selected for harvest. All other species will be reserved. The stands will be thinned to a target basal area of 140 square feet. The average DBH of the residual stand will be approximately 24 inches and 45 large trees per acre. 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.

Partial Cut - Heavy:

In Area II the target SDI will be 24. Douglas-fir will be selected for harvest. All other species will be reserved. The stands will be thinned to a target basal area of 120 square feet. The average DBH of the residual stand will be approximately 25 inches and 35 large trees per acre. 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.

For all areas, 1 tree per acre shall be topped to create hard snags. Selected trees will have a DBH of at least 18 inches, and be at least 60 feet in height.

Mechanical slash piling, and/or scarification, during harvest operations are recommended for site preparation in Area II.

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. Additional snags will be created over time through natural processes.

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:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,000		4,000
Stumpage Value (\$/MBF)	400		
Estimated Gross Value	\$1,600,000		\$1,600,000
		Project Costs:	\$72,000
		Estimated Net Value:	\$1,528,000

VI. TRANSPORTATION PLANNING AND HARVESTING:

The sale areas are accessed via Karth Road and other unnamed existing ODF roads. These are currently all weather, crushed rock roads. A portion of the haul route is on a county road (Karth Road). No access easement is necessary.

Approximately 1.1 miles of road will be constructed to provide access to cable yarding and landing locations. New construction is limited to mostly ridgetops and gentle to moderate sideslopes. Proposed roads will cross one small, Type F, perennial stream. This stream will be verified for fish presence and be treated as a Type F stream until determined otherwise.

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.

Rock will most likely be pit run rock from the Rudy Pit and is less than a mile from the sale area.

Other project work will include installation of drainage-disconnect culverts, where appropriate, along approximately 2 miles of the existing Rudy Pit Road. Also, approximately 8 miles of existing spur roads will be assessed for potential closure.

Sale related project work - estimated costs: \$63,000.
 Other project work - estimated costs: \$9,000.

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

The operation will be approximately 35% cable yarding, 65% ground based yarding.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	1.1	0
Improve	0	0	0	0
Maintain	0	3.5	1.0	0
Close/Block ¹	0	0	5	0
Vacate ¹	0	0	3	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.

¹ These mileages reflect roads that will be assessed for closure. They do not necessarily represent the actual roads that may be closed or vacated.

VII. AQUATIC RESOURCES AND WATER QUALITY:

According to current stream data, there are two Type F streams that are within or adjacent to the sale area. There are also a few seasonal, Type N, streams within the sale areas. All streams are tributary to Oak Ranch Creek, which is a direct tributary to the Nehalem River.

During sale layout, all streams will be field verified as to size, type, locations, and/or source. If the streams in question are determined to be Type F, any road crossings will be assessed for fish passage issues and possible mitigation.

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

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 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. Chazmo 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.

Chazmo 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.

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 low. There are no steep slopes noted within the sale area. The geotechnical specialist may be consulted if concerns arise during sale layout.

X. RECREATION RESOURCES:

The sale area is designated as unzoned in the Tillamook State Forest Comprehensive Recreation Plan (1993).

An unauthorized hiking trail was identified within Area I. The trail comes from the county owned property where Camp Wilkerson is located. The trail has mile post markers and a bench, planted into the ground with concrete. The county has been contacted about the proposed timber sale. Their response was to carry out the sale as planned and to not be concerned with protecting the trail. Trails will be evaluated by the District Recreation Coordinator to determine if the trails should be protected, rehabilitated, and/or blocked to access. A plan will be developed to advise the public when trails are closed due to harvest activity.

Recreational use common to this area includes hiking, horseback riding, hunting, and camping.

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:

The sale area has a visual classification of Level 3, low sensitivity.

XIII. OTHER RESOURCE CONSIDERATIONS:

Property lines have 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	5	1
II	Aquatic and Riparian Habitat	4	0
III	Aquatic and Riparian Habitat	0	0
IV	Aquatic and Riparian Habitat	10	4