Pre-Operations Report

Operation Name: Seven C's
County: Tillamook
Management Basin: Rogers
Legal Description: Sec. 20, 21, 27 and 28, T01N, R06W, W.M.

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	Moderate Partial Cut	94	93
II	Moderate Partial Cut	185	172
III	Moderate Partial Cut	93	83
Total	**Partial Cut Harvest**	**372**	**348**
IV	Modified Clearcut	94	71
Total	**Regeneration Harvest**	**94**	**71**

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 20% to 60%. Elevations range from 2600 to 3500 feet. The major soil types are Elsie and Dover. The sale areas occupy the ridges to mid-slopes.

The landforms are gentle to moderate slopes of the divide between the headwaters of the North Fork of the Trask River and Jordon Creek and the Wilson River. The underlying rock is igneous, Tertiary intrusive diabase with pillowform and radial columnar joints, sills are cut by regional dike swarms of the Tillamook Volcanics with sedimentary rock of the Yamhill Formation, dark gray siltstone with thin tuff beds and thin arkosic sandstone beds.

II. CURRENT STAND CONDITION:

The sale areas burned in the 1939 and 1945 Tillamook Burn.

The Stand Level Inventory (SLI) has classified Area IV, the modified clearcut, as UDS and the other stands as a mixture of CSC and UDS.

Areas I, II and III are composed almost entirely of overstocked Douglas-fir. Area IV is a moderately well stocked stand of Douglas-fir with some noble fir and hemlock.

Areas I and III contain minor amounts of *Phellinus weirii.* Area II has a larger amount. The need for treatment will be determined at a later date. Area IV has no *Phellinus weirii*.

The understory in all the sale areas is comprised primarily of vine maple, salal and dwarf Oregon grape.

SLI data shows that there are approximately; 12 snags per acre and 3,200 ft^3 of DWD in Area I. 30 snags per acre and 4300 cuft of DWD in Area II. 6 snags per acre, and 2,400 ft^3 of DWD in Area III. 2 snags per acre, and 5,500 ft^3 of DWD in Area IV. Except for Area II, most snags and DWD are classes 3, 4 and 5.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID [1]	Species	Age	DBH	BA	TPA	SDI	Net Acres [2]
I	PC-M[4]	7985	DF	54	15	220	178	57	29
		7987	DF	54	14	288	269	77	64
		Target [3]			*17*	*136*	*86*	*33*	*93*
II	PC-M	7982	DF	53	13	222	245	62	149
		7987	DF	54	14	288	269	77	23
		Target [3]			*16*	*132*	*95*	*33*	*172*
III	PC-M	8299	DF	55	15	276	218	33	83
		Target [3]			*18*	*140*	*79*	*71*	*83*
IV	MC[4]	8012	DF	57	17	238	157		71

[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.
[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, MC is Modified Clearcut.

III. DESIRED STAND CONDITION:

The harvest operation will develop Areas I, II and III into UDS, and Area IV into REG, in the short term. According to the Forest Grove District's landscape design for the Rogers basin, the desired future condition (DFC) for these stands are 81% General, 19% OFS.

The anticipated management pathway for Area III is to conduct a 2nd entry operation for density management. Reducing the SDI, by harvesting some of the conifer, will maintain vigorous growth of the overstory, and stimulate understory development. In the future all of Area III will be assessed for an OFS pathway.

For Areas I, II, and III, all existing snags and down woody debris of all decay classes shall be retained. Hardwoods and all conifer species other than Douglas-fir shall be reserved from harvest. 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	7985	CSC	UDS	GEN	34
	7987	CSC	UDS	GEN	59
II	7982	CSC	UDS	GEN	143
				OFS	7
	7987	CSC	UDS	GEN	22
III	8299	UDS	UDS	GEN	33
				OFS	50
IV	8012	UDS	REG	GEN	71

[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, II and III are PC- M**.** The target SDI is approximately 33.

Douglas-fir will be selected for harvest. All other species will be reserved. Area I will be thinned to a target basal area of 120 to 140 square feet. The average DBH of the residual stand will be approximately 17 inches. Area II will be thinned to a target basal area of 120 to 140 square feet. The average DBH of the residual stand will be approximately 16 inches. Area III will be thinned to a target basal area of 130 to 150 square feet. The average DBH of the residual stand will be approximately 18 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.

Modified Clearcut:
Area IV is a MC.

Hemlock and noble will be reserved from harvest.

2 trees per acre shall be topped in Area IV to create hard snags. Snags shall be evenly distributed thoughout the area and the green tree retention areas, and have a DBH of at least 18 inches, and be at least 60 feet in height.

A variety of methods will be used to achieve green tree retention requirements, which include three green tree retention areas, stream buffers, and trees scattered across the area IV. These methods will be used in combination to meet the green tree requirement in the Forest Management Plan (FMP) and provide snags and DWD to the stand, which are expected to develop through natural processes.

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

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.

Light slash piling on ground-based yarded areas is recommended for preparing the site for tree planting. Sale area will be planted with a mix of Douglas-fir, noble fir, and hemlock.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	☐	☑
Planned Quarter:		**4**	

	Conifer	Hardwood	Total
Net Volume (MBF)	**6,500**		**6,500**
Stumpage Value ($/MBF)	**$400**		
Estimated Gross Value			**$2,600,000**
		Project Costs:	**$152,000**
		Estimated Net Value:	**$2,448,000**

VI. TRANSPORTATION PLANNING AND HARVESTING:

The sale areas are accessed via C Line Road and Seven Cedars Road. These are currently crushed rock road and pit run roads respectively.

Approximately 1.7 miles of Boundary Road and 1.8 miles of 7 Cedars Road (existing surfaced road) will be improved which includes grading, rocking, widening, culvert replacement, spot rocking, sidecast pullback, and adding new culverts. See maps for specific road locations and conditions.

Approximately 0.2 miles of road will be constructed to provide access to landing locations. New construction is limited to ridgetops and gentle to moderate sideslopes. Proposed roads will not cross any 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 harvest operations, roads and skid trails within the sale areas will be evaluated for closure.

The trail/road access points need improvement. Skid roads will be blocked to prevent their use as unauthorized trails.

Approximately 10 miles of existing spur roads will be assessed for potential closure or vacating. Estimated cost is $5,000

Sale related project work - estimated costs $147,000.
Other project work – estimated costs $5,000.

The operation will be 80% cable yarding and 20% ground yarding. Some of Area II will require down hill cable logging. The alternate access instead of down hill yarding is constructing a steep, truck assist road.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0.2	0
Improve	0	0	3.5	0
Maintain	0	25	0	0
Close/Block[1]	0	0	10	0
Vacate[1]	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.
[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:

There are several unnamed small perennial and seasonal Type N streams within the sale areas. Some flow into the North Fork of the North Fork of the Trask, the South Fork Wilson River and Jordan Creek.

During sale layout, all streams will be field verified as to size, type, locations, and/or source.

Riparian area stand types along these streams are a mix of conifer and hardwood.

Oregon Department of Fish and Wildlife (ODFW) has complete all necessary stream surveys.

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.

The haul route is in proximity to streams in which listed fish are present. Seasonal hauling restrictions will be applied in order to protect the said resources. Restrictions may include limiting the number of loads hauled per day, not hauling during periods of heavy moisture, or having an alternate haul route.

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 September 15. 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).

Spotted owl surveys are not required for Seven C's, as the sale area is within the Tillamook Burn (see November, 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*).

Surveys for marbled murrelets are not required, due to the absence of potentially suitable habitat within the sale area. The ODF wildlife biologist for the NW Oregon Area made the determination that the sale area is non-suitable habitat for marbled murrelets.

This operation involves an activity that is listed in the National Marine Fisheries Service adopted rules under Section 4(d) of the Endangered Species Act. The haul route is in proximity to streams in which listed salmon and/or steelhead are present. For a discussion of protection measures for listed fish, see sections VI and VII.

The sale area was checked against the Oregon Natural Heritage Program (OHNP) 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 from the geotechnical specialist is low. There are only a few steep slopes scattered though the sale area. The geotechnical specialist may be consulted if concerns arise during sale layout.

X. RECREATION RESOURCES:

The sale area is designated as Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). The District Recreation Coordinator has reviewed this sale. The trail/road access points need improvement and will be cleaned. Skid roads will be blocked to prevent their use as unauthorized trails.

The Airplane Hill Trail, adjacent to Area III, is scheduled for relocation. The area boundary will be adjusted to exclude the new trail location form the sale.

OHV trails are adjacent to the sale area. Short term closure of these trails will 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.

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 areas have 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
1	aquatic and riparian habitat	28	0
2	aquatic and riparian habitat	34	2
	recreation	130	0
3	aquatic and riparian habitat	80	2
	recreation	59	0
4	aquatic and riparian habitat	14	5