Pre-Operations Report

Operation Name: Topo Bell
County: Washington
Management Basin: Gales Creek
Legal Description: Sec 6, T02N, R05W, W.M.
Sec 1, 2, 12, T02N, R06W, W.M.

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	Partial cut	251	218
II	Partial cut	97	88
Total	**Partial Cut**	**348**	**306**

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 0 to 65%. Elevations range from 2000 to 2600 feet. The major soil types are Osweg and Jewell. The sale areas occupy ridges and upper slopes.

The landforms are gentle to moderate slopes in the headwater of Gales Creek below Bell Camp Road. The underlying rock is igneous origin rock or the Tillamook Volcanics, basalt flows form the base and upper part of the shield building sequence.

II. CURRENT STAND CONDITION:

The sale areas burned in the 1945 Tillamook Burn and was planted and seeded between 1947 and 1952. These areas were fertilized and pre-commercially thinned.

Approximately 297 acres (95%) has been inventoried using the Stand Level Inventory (SLI) procedure and those stands have been classified as UDS. The remaining 16 acres of the sale are classified as CSC according to the Current Condition map that appears in the Forest Grove District Implementation Plan (*March 2003).*

The stand is composed almost entirely of Douglas-fir. Stands are overstocked and many of the intermediate and codominant trees have poor live crown ratios and poor height to diameter ratios. There is some scattered hemlock and alder throughout Areas I and II.

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

The understory in all the sale areas is comprised primarily of salal, bracken fern, and Oregon grape.

There are minor amounts of snags in various states of decay throughout all the sale areas. The sale areas lack adequate amounts of hard snags and DWD, according to target amounts provided in the Implementation Plan (IP).

SLI data shows that there is approximately 211 ft^3 per acre of DWD in decay class 0,1, and 2.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID [1]	Species	Age	DBH	BA	TPA	SDI	Net Acres [2]
I	PC-M[4]	7556	DF,RA	49	14	230	227	61	21
		7563	DF,WH	57	15	185	140	48	110
		7580	DF,WH	57	17	220	136	53	73
		7582	DF,WH	57	16	152	104	38	14
		Target [3]	*DF*	*55*	*16*	*140*	*100*	*35*	*218*
II	PC-M	7553*	DF,WH	57	16	210	149	53	16
		7556	DF,RA	49	14	230	227	61	72
		Target [3]	*DF*	*55*	*16*	*140*	*100*	*35*	*88*

[1] The source of stand inventory information is from SLI in 2004. Stand ID shown with (*) is from SLI expanded data 10/6/2004.
[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

III. DESIRED STAND CONDITION:

The harvest operation will develop these stands into UDS structure in the short term. According to the Forest Grove District's landscape design for the Gales Creek basin, the desired future condition (DFC) for Area I is GEN and the DFC for Area II is OFS.

The anticipated management pathway for the sale area is to conduct a first entry operation for density management. Reducing the SDI, by harvesting some of the conifer, will maintain vigorous growth of the overstory.

All existing snags and down woody debris of all decay classes shall be retained. All conifer species other than Douglas-fir and hardwoods 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	7556	UDS	UDS	GEN	21
	7563	UDS	UDS	GEN	110
	7580	UDS	UDS	GEN	73
	7582	UDS	UDS	GEN	14
II	7553	CSC	UDS	OFS	16
	7556	UDS	UDS	OFS	72

[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 and II are PC-M. The target SDI is approximately 35.

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 16 inches. Residual trees will be the trees that have the largest DBH and height, and are of the best form and vigor.

One tree 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.

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.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		☑
Planned Quarter:		**1**	

	Conifer	Hardwood	Total
Net Volume (MBF)	**4,600**	**-----**	**4,600**
Stumpage Value ($/MBF)	**400**	**-----**	
Estimated Gross Value	**1,840,000**	**-----**	**1,840,000**
		Project Costs:	**160,000**
		Estimated Net Value:	**1,680,000**

VI. TRANSPORTATION PLANNING AND HARVESTING:

The sale areas are accessed via Cochran, Round Top, and Bell Camp roads. These are currently all weather roads. An access easement will need to be obtained from Stimson for the proposed landing located at the southern end of area one. Road use fees may apply.

Approximately 1.2 miles of existing surfaced road will be improved which includes grading, rocking, widening, and culvert replacement. This work will bring all roads up to standards described in the Forest Roads Manual. See maps for specific road locations and conditions.

Approximately 2.1 miles of road will be constructed in order to provide access for cable yarding and landing locations. The rock source will be the Round Top Pit and the Bellgrade Pit.

New construction is limited to ridgetops and gentle to moderate sideslopes. New road construction will consist of two minor stream crossings of small type N streams. One stream crossing will also be upgraded along with road improvement.

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, roads and skid trails within the sale areas will be evaluated for closure.

Project work and their estimated costs are $160,000.

The operation will be 70% cable yarding and 30% ground yarding.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	2.1	0
Improve	0	0	1.2	0
Maintain	0	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:

The headwaters of Gales Creek, a medium Type N stream, is adjacent to the sale area.

There are several unnamed small perennial Type N streams within the sale areas, which are tributaries to Gales 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 generally a mix of hardwoods and conifers.

Other known aquatic habitat within the sale area includes seeps and springs.

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 June 1 and September 30. 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. Topo Bell 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.

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.

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 moderate. There are bands of steep slopes at the bottom of the sale area and a few steep slopes scattered though the sale area. The geotechnical specialist will be consulted during sale layout and the need for field review will be assessed.

X. RECREATION RESOURCES:

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

The Gales Creek hiking trail is adjacent to Area I. Recreational use common to this area includes hunting, hiking, horseback riding, and mountain biking.

Issues:

- Disruption to trail use
- Impacts to the Gales Creek Trail

During sale planning work, consider measures or strategies that will:

- Protect or enhance the trail resource

- Inform the public about the sale activity
- Minimize disruption to trail use. Maintain access to and use of the trail during the summer use season (April – October)
- Provide for trail repair after the sale activity is complete
- Minimize road development and post sale road use impacts

XI. CULTURAL RESOURCES:

The sale area was checked against the Tillamook State Forest Cultural Resource Inventory database. This database lists a cultural site within the sale boundary of Area I.

This resource is described as "Bell Camp". The cultural resource classification for this site is Class 1 – legally mandated protection. The district will consult the Public Use Coordinator for appropriate protection measures when necessary.

XII. SCENIC RESOURCES:

Areas I and II have a visual classification of Level 2, medium sensitivity.

Visual impact will be minimal due to trail buffers and amount of residual trees left in sale areas.

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	46	14
	Recreation	14	0
	Wildlife Habitat	18	0
II	Aquatic and Riparian Habitat	33	1