

Pre-Operations Report Instructions

Operation Name: Rutherford U.
County: Tillamook
Management Basin: Rogers

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Moderate Partial Cut	130	125
2	Moderate Partial Cut	264	251
Total	Partial Cut Harvest	394	376

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 25% to 80%. Elevations range from 1400 to 2400 feet. The sale areas occupy the ridges and upper slopes.

The landform is a narrow, moderate to very steep three drainage divide of Fern Rock Creek, Devils Lake Fork of the Wilson River, South Fork of the Wilson River and Elliott Creek. The underlying rocks are mostly igneous origin of the Tillamook Volcanics Formation with a small areas of sedimentary origin rock in the southeast part of Area 2.

II. CURRENT STAND CONDITION:

The sale areas burned in the 1933 and 1945 Tillamook Burn. It was then seeded in the mid 1950's. There has not been any other stand management.

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

The stands are almost entirely Douglas-fir with minor amounts of hemlock, noble fir, redcedar, and alder scattered throughout the sale area.

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 salal, vine maple, sword fern, dwarf Oregon grape, huckleberry, bracken fern. Based on SLI data, average ground cover throughout all areas is estimated to be 80-90%.

There is a moderate amount of snags in various states of decay throughout the sale area. According to SLI data an average of approximately 5-6 snags per acre total and 1-2 hard snags per acre. There is an estimated 2 snags per acre of large (24"+) remnant old growth snags and 4500 ft³ of DWD in decay classes 3 and 4 throughout the sale area.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age ⁵	DBH	BA	TPA	SDI	Net Acres ²
1	PC-M ⁴	7799	DF	38-52	15	162	134	42	25
		7800	DF	34-50	13	168	173	46	36
		7803	DF	36-46	15	222	184	46	64
		<i>Target</i> ³	<i>DF</i>		17	140	90	35	125
2	PC-M	7861	DF	36-46	15	188	148	49	62
		7868	DF	36-38	16	168	123	43	6
		7879	DF	37-41, 55	15	222	186	58	183
		<i>Target</i> ³	<i>DF</i>		17	140	90	35	251

¹The source of stand inventory information is from SLI completed in 2005.

²The acres are based on GIS and exclude existing and planned roads, stream buffers, and non-thinnable areas.

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

⁴PC-M is Moderate Partial Cut.

⁵Actual measured breast height ages are shown unless labeled "est."

III. DESIRED FUTURE CONDITION/VISION:

According to the Forest Grove District's landscape design for the Rogers Basin, the desired future condition (DFC) for Area 1 is 77% LYR and 23% OFS. The DFC for Area 2 is 25% LYR and 75% General.

For the entire sale area, the vision starts with controlling the spread and abundance of *Phellinus* within the stands. With treatment the residual stand will be in prime condition to initiate what will become an intermediate layer and to diversify species composition. Although the entire sale area will be treated with the same prescription with this entry, the areas with different DFC's will likely take separate pathways after the next entries 20-30 years post harvest in order to achieve their landscape management objectives.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	7799	UDS	UDS	LYR	7
				OFS	18
	7800	UDS	UDS	LYR	36
				OFS	15
	7803	UDS	UDS	LYR	49
OFS				15	
2	7861	UDS	UDS	LYR	62
	7868	UDS	UDS	GEN	6
	7879	UDS	UDS	GEN	183

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 AND PATHWAY:

Areas 1, 2 and 3 are PC-M. Douglas-fir will be selected for harvest. All other species will be reserved. The stand will be thinned to a target basal area of 140 square feet. The average DBH of the residual stand will be approximately 17 inches. There will be *Phellinus* treatment, creating small “patch-cuts” ¼ to 5 acres in size. All trees that show signs of having *Phellinus* and all “bridge trees” within 15 feet of infected trees will be cut. Residual trees will be the trees that have the largest DBH and height, and are of the best form and vigor.

The largest gaps created from treatment will be planted with alder. Remaining gaps will have western hemlock and other conifer underplanted or allowed to germinate naturally. The site contains a large quantity of salal. Aerial herbicide spraying in the large openings will be considered and evaluated after harvest. 10-15 years after planting, the alder will be evaluated for pruning and the dense clumps of understory trees for precommercial thinning.

In areas with DFC-OFS and LYR, another entry 20-30 years post harvest will reduce the overstory stocking to OFS targets and maintain the development of the understory trees and pockets of alder. Over time, Douglas-fir in the overstory will die and the thriving more shade tolerant conifer in the understory will capitalize on opportunities to reach the overstory. 20-30 years after the second entry the stands will be very close to a condition of complex structure.

In areas with DFC-GEN, the stands will be prime candidates for final harvest 20-30 years after this entry. Many of the uninfected Douglas-fir will remain as scattered leave trees, and many of the well established understory trees will become the overstory in the post harvest stand.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		X
Planned Quarter:		1-4	

	Conifer	Hardwood	Total
Net Volume (MBF)	5000		5000
Stumpage Value (\$/MBF)	\$375		
Estimated Gross Value	\$1,875,000		\$1,875,000
		Project Costs:	\$206,000
		Estimated Net Value:	\$1,669,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Rutherford Road and University Falls Roads and other unnamed spur roads. These are all currently all-weather, crushed rock roads.

Approximately 0.8 miles of existing, unsurfaced, road will be improved which includes grading, rocking, widening, culvert replacement, and adding new culverts.

Approximately 2.9 miles of road will be constructed in order to provide access to landing locations. See maps for specific road locations and conditions.

New construction is limited to mostly ridgetops and gentle to moderate sideslopes. Some portions of road construction (approximately 0.34 miles) will have steep sideslopes. Those portions are within the upper slopes of the ridgetop. There will likely be temporary road construction and vacation along this portion of new road. A more thorough evaluation will be done during sale layout. Proposed roads will cross 1 perennial stream.

All haul roads other than the temporary road 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.

Project work and their estimated costs are; 2.9 miles of construction at \$60,000 per mile, and 0.8 miles of improvement at \$40,000 per mile. Total project costs are \$206,000.

The operation will be 75% cable yarding and 25% ground based yarding.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct			2.6	0.3
Improve			0.8	
Maintain		5.0	3.4	0.3
Close/Block				
Vacate				

VII. AQUATIC RESOURCES AND WATER QUALITY:

According to the most current stream information there are five Type F perennial streams within or adjacent to the sale area. At least four of these are not likely to have fish as far up the stream as the data indicates. One other Type N perennial stream is adjacent to the sale area.

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 usage or upon further analysis by a forester during sale layout.

Streams are tributary to the South Fork Wilson River, Devils Lake Fork Wilson River, and Elliott Creek.

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

Approximately 45 net acres of the sale (11%) are within the Devil's Lake Fork Wilson River basin. SAH riparian strategies will apply in this portion. FMP riparian protection standards will apply to the remainder of the sale.

Most of the stream buffers within harvest unit boundaries will be managed according to FMP Riparian Strategies. This basin has been designated as a Salmon Anchor Habitat (SAH) Basin. SAH Basin Strategies will be applied during timber sale layout and contract development.

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 Aug. 31. Operations outside of this period will be reviewed with ODFW.

VIII. WILDLIFE AND 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 2005 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Rutherford U. was surveyed for spotted owls three times in 2005 with no responses, and the second year of survey will be completed in 2006. 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.

This operation does not involve an activity that is listed in the National Marine Fisheries Service (NMFS) adopted rules under Section 4(d) of the Endangered Species Act. Neither the sale area nor the haul route is in close proximity to a stream with listed fish.

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:

There are only a few steep slopes in Area 1 but numerous steep slopes in Area 2. The initial hazard and risk assessment from the geotechnical specialist is moderate for Areas 1 and high for Area 2. The geotechnical specialist will be consulted during field work to determine if a field visit is needed.

Portions of the sale area are within a SAH Basin. Current SAH Strategies in that portion will be used at the time of timber sale preparation and contract development. See the Summary Document for more information.

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, and suggests:

Unauthorized OHV trails were identified within or adjacent to the sale areas. Trails will be evaluated by the District Recreation Coordinator to determine if the trails should be protected, rehabilitated, and/or blocked to access. Further assessment will likely occur at time of timber sale preparation.

Portions of the Back to Back Trail and Marianna Trench Trail are within and/or adjacent to the sale area. Short term closure of these trails and associated trailheads may 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. In addition, work may need to be done to make the road into a more trail-like condition. Potential work may include placing boulders and logs along the side of the road, creating drainage dips, etc..

Stagecoach Horse Camp is within close proximity to the sale area.

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

See maps for specific locations of recreational resources.

XI. CULTURAL RESOURCES:

The sale area and proposed road construction right-of-way were checked against the Tillamook State Forest Cultural Resource Inventory Database (GIS format). No cultural resource records were identified within or adjacent* to the operation areas. If any significant cultural resources are located during sale preparation, the Public Use Coordinator (ODF Salem Staff) will be consulted regarding potential protection measures.

**Adjacent refers to approximately one tree length from an operation area. For the purpose of this screen, a 200 foot buffer around the sale boundary and proposed road construction right-of-way was assessed for cultural resource locations.*

XII. SCENIC RESOURCES:

Portions of the sale area have a visual classification of Level 1, high sensitivity. The visual impacts have been considered and examined thoroughly. The sale is barely visible from Highway 6. Due to harvest prescription, visual impact, if any, will be negligible and short term.

The rest of the sale area would be considered Level 2 or 3, moderate or low sensitivity. Due to harvest prescription, impacts would be minimal and short term.

XIII. OTHER RESOURCE CONSIDERATIONS:

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

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Areas 1 and 2 contain Focused and Special Stewardship, Aquatic and Riparian Habitat Subclass, due to the presence of perennial streams within the sale areas. The sale areas also contain Focused Stewardship, Wildlife Subclass, because the sale area is within the Devils Lake Fork Wilson River Salmon Anchor Habitat (SAH). See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. Both sale areas are Focused Stewardship, Recreation Subclass. See Section X, Recreation Resources, for the strategies that will be implemented to minimize impacts to trail resource. Areas 1 and 2 also contain Focused Stewardship, Visual Subclass. See Section XII, Scenic Resources, for a discussion of scenic considerations. Area 1 contains Special Stewardship, Operationally Limited Subclass. The Geotechnical Specialist will conduct an onsite evaluation of the sale areas for slope stability. See Section IX, Slope Stability and Geotechnical Issues for further discussion.