

Pre-Operations Report

Operation Name: West Beagle
County: Tillamook
Management Basin: Trask

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	MC	126	109
2	RC	39	36
3	MC	38	32
4	MC	77	67
5	RC	12	12
6	MC	96	93
Total		388	349

¹ The net acres are based on orthophotos and GIS and exclude roads, stream buffers (special stewardship), other stream buffers and reserve areas.

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 5% to 90%. Elevations range from 300 to 1500 feet. The major soil types are Rye 48% and Waseco 32%, with minor soil types of Killam 15%, Enright 4%, and Cochran 1%.

The sale is located above unnamed tributaries of the South Fork and the North Fork of the Trask River. Slopes range from streamside to ridge-top. The underlying rock is mostly sedimentary origin rocks of the Yamhill Formation massive to thin-bedded dark gray siltstone commonly associated with tuff beds and thin sandstones. The underlying rock in the northwest portion of the sale area is igneous intrusive origin rocks, diabase commonly tabular sills with columnar joints cut by dike swarms fed by Tillamook Volcanics. There is also one very small band of sedimentary origin rock of the Tyee Formation, thin bedded siltstone and sandstone turbidite sequence.

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information⁴

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	MC	309	DF/RA	41	15/14	94/135	197	57	109
2	RC	310	DF/RA	41	15/13	153/27	158	49	36
		Target ³	DF		20	40	19	9	36
3	MC	309	DF/RA	41	15/14	94/135	197	57	32
4	MC	322	DF/RA	41	16/14	70/116	162	59	67
5	RC	310	DF/RA	41	15/13	153/27	158	49	12
		Target ³	DF		20	40	19	9	12
6	MC	309	DF/RA	41	15/14	94/135	197	57	93

¹ The source of stand inventory information is from field reconnaissance cruise plots taken in 2004.

² The net acres are based on orthophotos and GIS and exclude roads, and stream buffers (special stewardship), other stream buffers or reserve areas. Modified clear cut acres are not contiguous and do not exceed 120 acres.

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

⁴ These numbers are based on plot data taken to this point and final numbers may differ significantly from the actual conditions. The directive for minor and major modifications will be followed for further review.

The sale areas burned in the Tillamook and Saddle Mountain fires and was seeded in 1952-53, again in 1957-58, and planted in 1966-67. These areas have had no prior stand management.

The stands in the sale areas are classified as 100% CSC according to the district stand summary information (1999). The stand is characterized by a single conifer species, Douglas-fir, and a single hardwood species, alder. The brush is variable in height and density. The trees have closed canopies and allow little sunlight to the forest floor.

See Table 2 for specific stand data.

The Douglas-fir has Swiss needle cast (SNC) symptoms and poor live crown ratios resulting in slowed growth. The stands have been mapped by aerial surveys in each of the last three years.

There is scattered hemlock, cedar and/or alder throughout the sale. Portions of the alder components in Areas 2, 3 and 5 were aerially sprayed to release planted conifer in the 1970's resulting in alder trees with short boles and many limbs. The alder in the Areas 1, 4 and 6 was not aerially sprayed but the height and diameter growth has slowed due to stand age. No other significant insect or disease problems have been discovered at this time.

The brush component in all the sale areas is comprised primarily of vine maple, sword fern, salmonberry, salal, Oregon grape, huckleberry, bracken fern or

oxalis. The brush is scattered and forms a minor component throughout the sale areas. The concentrations of species are near openings and along streams.

There are some large snags in various states of decay and/or some hard snags created from (wind, snow, and/or bear damage). Down wood consists of scattered large old logs (36"+) in Class 3 and 4 stages of decay and some windthrow in decay classes 1 and 2.

III. DESIRED STAND CONDITION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	309	CSC	REG	GEN	109
2	310	CSC	UDS	GEN/LYR	33/3
3	309	CSC	REG	GEN/LYR	30/2
4	322	CSC	REG	GEN/OFS	48/19
5	310	CSC	REG	LYR	12
6	309	CSC	REG	GEN/LYR/OFS	11/22/60

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.

See Section IV: Proposed Management Prescription for more information on Green Tree, Down Wood, and Snag Strategies during operation. Also refer to Landscape Design in the Summary document for more information on strategies to move the district toward Desired Future Condition goals.

Regeneration Harvest:

Areas 2 and 5 do not show characteristics to develop into a complex stand due to SNC. By conducting a final harvest at this time and planting a mix of species the potential to develop complex stands is increased.

Treatment of 6 areas will create a mosaic over 388 acres of openings, gaps, variable densities and mixed species. Unmanaged hardwood and conifer mixes will be left in headwalls, and/or in riparian buffers as well as scattered in the unit.

As the future stand is established and matures the residual trees from these treatments will add to complexity of sizes, species and densities. These trees will also add to snags and down wood over time and through the life of the stand.

Stand Level Inventory (SLI) will be scheduled for clearcut and regeneration harvest units five to seven years after stand establishment. This inventory will provide more data on down wood and snags in the harvest units.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

See table 2 for prescription targets

Modified Clearcut:

In Areas 1, 3 and 6 Douglas-fir and/or merchantable alder will be removed. An average of 5 Douglas-fir trees per acre will be left. These residual trees will provide a future down wood and/or snags. All other species will be reserved.

In Area 4 Douglas fir and/or merchantable alder will be removed. A diameter limit will be used to select an adequate amount of Douglas fir trees to be left to maintain the scenic value. See Section XII for more information.

Retention Cut:

In Areas 2 and 5, an average residual basal area will be at least 33 square feet, primarily in Douglas-fir. Douglas-fir and/or merchantable alder will be removed. All other species will be reserved.

Understory vegetation will be enhanced by the additional growing space available.

Green Tree, Down Wood and Snag Strategies

See also Section III: Desired Future Condition for long term strategies

A variety of methods will be used to achieve green tree retention requirements. These residual green trees will supplement the future stand by promoting growth of dominant/co-dominant leave trees. Small non-merchantable hardwood and conifer will also be retained where possible. These leave trees function as future source of snags and down wood recruitment across the landscape. Areas adjacent to the operations will be designated as Green Tree Retention areas. This will aid in the amount of species and sizes available for future management decisions. Headwalls and steep slopes in the sale areas will be evaluated at sale layout to determine best practices for protection and for adding to green trees.

Existing down wood will be left in the sale areas. Down wood recruitment is expected through mortality and windthrow of residual or leave trees, felled snags and tops left during harvest. Small non-merchantable hardwood and conifer will be retained where possible in harvest units with the expectation they will become short term snags and down wood.

Existing snags not determined to be a safety hazard will be retained and any felled snags will be left for down wood. Creation of snags is expected during harvest activities (rub trees, lift trees, or tail trees) and over time by 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 type="checkbox"/>
Planned Quarter:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	2625	2224	4849
Stumpage Value (\$/MBF)	\$240.70	\$248.38	
Estimated Gross Value	\$631,850	\$552,400	\$1,184,250
		Project Costs:	\$321,300
		Estimated Net Value:	\$862,950

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Toll and Eagle Hill Roads. These are currently all weather, crushed rock roads. See maps for specific road locations and conditions.

Approximately 0.3 miles of existing surfaced, 2.0 miles existing unsurfaced and/or abandoned road will be improved which includes grading, rocking, widening, culvert replacement, spot rocking, sidecast pullback, and adding new culverts. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately 3.0 miles of road will be constructed in order to realign existing roads, avoid improving roads on steep slopes or to provide access to areas for harvesting and reforestation. Following harvest, roads within the sale areas will be reviewed for closure. See summary document for more information.

The operation will be 100% cable yarding in Areas 1, 3, 4, 5 and 6. The operation will be 50% cable yarding and 50% ground yarding in Area 2.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct	0	0	2.8	0.2
Improve	0	1.0	1.3	0
Maintain ²	1.8	1.4	0	0
Close/Block ³	0	0	0	0.2
Vacate ³	0	0	0	0.2

¹ Additional roads may be built by the operator at the time of harvest and will be approved by the State through the Operations Plan. These will be short dead end spurs and closed or blocked after harvest

² All roads accessing the sale area will be maintained during the life of the timber sale contract.

Maintenance miles in the table are those roads not being constructed or improved.

³ Roads not closed/blocked or vacated at the end of the sale will be reviewed for closure after reforestation is established.

⁴ The numbers in this table reflect planned Project Work associated with the sale.

VII. AQUATIC RESOURCES AND WATER QUALITY:

North Fork Trask River is a large Type F stream that is adjacent to the sale areas. Trask Mill Creek is a medium perennial Type N stream that is within or adjacent to the sale area and haul route.

There are additional unnamed small perennial and seasonal Type N streams within the sale areas. These streams will be reviewed and protected appropriately during sale layout based on flow, topography, and terrain.

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 or adjacent to harvest unit boundaries will be managed according to *Forest Management Plan* 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 monitoring 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. Surveys for marbled murrelets or northern spotted owls are not required for West Beagle due to the absence of potentially suitable habitat.

T & E Plant species: The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known threatened or endangered listed plant locations as well as local records in the Land Management Classification System (LMCS). No listed plants were identified within or adjacent to the sale areas.

A plant on the state candidate list was identified as within or adjacent to the sale area. There is no legal protection required for this species but ODF does monitor and manage around this species. The species is normally found in moist areas along streams. All riparian rules will apply so disturbance will be minimal. The ODF plant specialist will be consulted prior to sale layout.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The slopes above the North Fork of the Trask River in the northern portion of the sale are moderate with a few bands of steep slope. The risk is this northern portion of the sale is moderate. The slopes above the unnamed tributaries of the South Fork of the Trask River are steeper and more extensive. The risk is high at least near the upper end of both unnamed tributaries in the northeast and southeast corners of the southern portion of the sale area. The geotechnical specialist will review the sale in the field. If the sale boundaries are changed prior to field review, the geotechnical specialist may be consulted and the need for field review may be reassessed.

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.

OHV trails are present within the sale areas. Short term closure of these trails 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.

Recreational use common to this area includes hunting, camping, fishing, swimming, and OHV use.

XI. CULTURAL RESOURCES:

The *Tillamook State Cultural Assessment* does not list any cultural sites within or adjacent to the proposed sale boundary.

XII. SCENIC RESOURCES:

The majority of the sale areas have a visual classification of Level 3, low sensitivity. No scenic impact is expected.

Portion of Area 4 has a visual classification of Level 2, moderate sensitivity. Visual impact will be minimal due to the small size of the treatment area, stream buffers, and the amount of residual trees being left using a random distribution, to be determined during sale layout. The sale will be reviewed by the Public Use Coordinator to evaluate methods to minimize visual impact.

XIII. OTHER RESOURCE CONSIDERATIONS:

1-hectare permanent inventory plot #2145064 is adjacent to Area 1.

Portions of Areas 4 and 6 are in a Landscape Management Area as deeded by a county resolution.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Table 6. Land Management Classification Summary

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
1	Aquatic and Riparian	42	1
2	Aquatic and Riparian	10	0
3	Aquatic and Riparian	12	1
4	Aquatic and Riparian	21	<1
4	Recreation	26	0
5	Aquatic and Riparian	1	<1
6	Aquatic and Riparian	26	<1
6	Recreation	6	0
6	Deeds	6	0

This table summarizes the acres of Focused and Special Stewardship within the operations. The acres in each operational area in this table do not necessarily add up to its gross or net acres, because of overlapping classifications under the Land Management Classification System (Feb. 2003). For example, a particular acre can be classified as Focused Stewardship for Aquatic and Riparian, Recreation, and Scenic resources.