

Pre-Operations Report

Operation Name: Forest
County: Tillamook
Management Basin: Nestucca

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	PC	32	31
2	MC	88	84
3	PC	5	5
4	MC	27	25
5	MC	3	3
6	PC	20	20
Total		175	168

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

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a W, NW, N, and NE aspect and range from 5% to 70%. Elevations range from 1000 to 1800 feet. The major soil types are Killam and Rye.

The sale areas are located below Squaretop Mountain on moderate to gentle upland slopes above the headwaters of East Creek a tributary to Moon Creek and the Nestucca River. The underlying rock is sedimentary origin rocks of the Yamhill Formation massive to thin-bedded dark gray siltstone commonly associated with tuff beds and thin sandstones. The southwest corner of Area 4 is mapped as part of a very large deep-seated landslide feature.

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information⁴

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1, 3, 6	PC	305	DF/WH	46	15/16	120/77	96/58	46	56
		Target ³	DF/WH	46	18/16	42/77	23/58	25	
2, 4, 5	MC	306	DF/WH/RA	41	14/17/12	74/20/26	74/12/36	30	112

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, reserve area and non-required thinning 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 from the actual conditions significantly. The directive for minor and major modifications will be followed for further review.

The sale areas were planted in 1964. Portions of the sale areas were pre-commercially thinned in 1993, others 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). Areas 1, 3 and 6 are Douglas-fir stands with patches of alder. Areas 2, 4 and 5 are hemlock and Douglas-fir stands with scattered inclusions of alder. The brush in all areas varies in height and development from loose ground cover to dense understory over 10 feet high. See Table 2 for specific stand data.

The Douglas-fir has Swiss needle cast (SNC) symptoms and poor live crown ratios resulting in slowed diameter and/or height growth. The stands have been mapped for SNC by aerial surveys. No other significant insect or disease problems have been discovered at this time.

There is scattered spruce and cedar throughout the sale. The brush component in all the sale areas is comprised primarily of salmonberry, with additional components of vine maple, sword fern, salal or Oregon grape.

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, 3, 6	305	CSC	UDS	GEN	56
2, 4, 5	306	CSC	REG	GEN	112

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.

Partial Cut:

In the short term Areas 1, 3 and 6 will be partial cut to reduce stand density. This is a first entry operation to begin to move the stand along the pathway to more complex structure.

In the long term this operation moves the stand toward more complex structure. This prescription will allow for openings and gaps in the stand to allow the residual trees to grow larger in diameter and crown depth. The openings and

gaps will also allow for understory re-initiation of shrubs and tree species creating horizontal and vertical diversity. The expectation is future density management to continue the growth of overstory trees as well as understory trees and shrubs species.

The stand will be evaluated by Stand Level Inventory in 5-7 years to determine snags per acre and cubic feet of down wood. If the stand is deficient in either of these characteristics, additional amounts will be created.

Regeneration Harvest:

Areas 2, 4 and 5 are not expected to develop complex characteristics due to decreased growth and poor needle retention caused by SNC infection. By conducting a final harvest of this stand and planting a mix of conifer species, future opportunities will be increased for management decisions.

Whole treatment of 6 areas will create a mosaic over 175 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 a future stand is established and matures the residual trees from these treatments will add to the complexity of sizes, species and densities. These trees will also add to snags and down wood over time and through the life of the subsequent 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

Partial Cut:

In Areas 1, 3 and 6, hemlock and Douglas-fir will be thinned to a basal area range of 110 to 130 square feet. Merchantable alder will be harvested. All other species will be reserved.

Modified Clearcut:

In Areas 2, 4 and 5, Douglas-fir and merchantable alder will be harvested. Incidental hemlock may also be removed. All other species will be reserved.

A diameter limit will be used to select how many conifer trees per acre to be left, determined after a more comprehensive cruise. These residual trees will provide a future down wood and/or snags. The largest of the trees, regardless of species, will be retained to meet this goal.

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. Residual trees will be in clumps and scattered throughout the clearcut areas. Additional areas adjacent to the harvest units will be evaluated for use as Green Tree Retention during sale preparation.

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 requiring tops left in the units during ground harvesting. 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"/>	X
Planned Quarter:		2	

	Conifer	Hardwood	Total
Net Volume (MBF)	1193	87	1280
Stumpage Value (\$/MBF)*	\$212.03	\$250	
Estimated Gross Value	\$252,950	\$21,750	\$274,700
		Project Costs:	\$25,500
		Estimated Net Value:	\$249,200

****Combined Douglas-fir and hemlock stumpage values based on harvest type.***

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via East Creek County Road to East Creek Road to BLM road 3-18-15 (Detrick Ranch Road). These are currently all weather, crushed rock roads. An access agreement with BLM will be needed to haul. Delays in obtaining an agreement may put the sale in a later quarter. See maps for specific road locations and conditions.

Approximately 0.2 miles of abandoned and 0.5 miles of existing unsurfaced 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 0.1 miles of road will be constructed to provide access to yarding areas. Following harvest, roads within the sale areas will be reviewed for closure. See summary document for more information on this topic. Other project work that will be included with this sale is road brushing.

The operation will be 100% ground yarding in Areas 1, 3, 4, 5 and 6. The operation will be 45% ground yarding and 55% cable yarding in Area 2.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct	0	0	0	0.1
Improve	0	0	0.5	0.2
Maintain ²	4.8	2.8	0	0
Close/Block ³	0	0	0	0.2
Vacate ³	0	0	0	0.1

¹Additional 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

²All 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.

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

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

VII. AQUATIC RESOURCES AND WATER QUALITY:

There are no known Type F streams within or adjacent to the sale areas. East Creek is a large Type F stream that is adjacent to the haul route.

There are several unnamed small perennial and seasonal Type N streams within the sale areas. Riparian vegetation along these streams includes hardwood/conifer mix or hardwood.

There are several streams adjacent to the sale areas that are not known to be Type F. Oregon Department of Fish and Wildlife (ODFW) will be requested to

complete stream surveys to verify fish use before sale layout. 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 has been reviewed with the ODF Northwest Oregon Area Biologist.

It was determined that in the sale areas, there is potential marbled murrelet habitat within or adjacent to the sale boundary. Surveys will be conducted during the 2004 and 2005 survey season for marbled murrelets. All surveys for marbled murrelet will be conducted in accordance with Pacific Seabird Group (PSG) protocol.

It was determined that in the sale areas there is potential northern spotted owl habitat within or adjacent to the sale boundary. Surveys will be conducted during the 2004 and 2005 survey season for northern spotted owl. All northern spotted owl surveys were and will be conducted in accordance with USFWS endorsed protocol.

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.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

There are only a few very small portions of the harvest units that are steep slope. A small portion of Area 2 might be an ancient large-scale slump earthflow landslide feature based on topographic shape only. Ancient landslide features of this type are typically not affected by timber harvest operations. The initial assessment by the geotechnical specialists is low. The geotechnical specialist may be consulted if concerns arise during sale layout.

X. RECREATION RESOURCES:

The sale areas are designated as Non-Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator.

No OHV trails were identified within or adjacent to the sale areas. No designated trails are planned for this area. Following harvest, roads within the sale areas will be reviewed for closure.

Recreational use common to this area includes hunting.

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

XIII. OTHER RESOURCE CONSIDERATIONS:

None known.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Table 6. Land Management Classification Summary

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
1	Aquatic and Riparian	7	0
2	Aquatic and Riparian	30	>1
3	Aquatic and Riparian	>1	0
4	Aquatic and Riparian	17	>1
5	Aquatic and Riparian	1	0
6	Aquatic and Riparian	3	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.