

Pre-Operations Report

Operation Name: Fire Break Ridge
County: Tillamook
Management Basin: Miami and Lower Nehalem

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	PC	113	88
2	MC	48	31
3	PC	56	39
Total		217	158

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

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 0% to 80%. Elevations range from 1320 to 2520 feet. The major soil types are Rye, Osweg, and Killam.

The landform for Area 1 is the gentle ridgetop divide and moderated to very steep slopes above two unnamed tributaries to the Miami River. Area 2 is moderate to very steep side-slopes above Anderson Creek a tributary to the Nehalem River. The underlying rocks are igneous origin of the Tillamook Volcanics formation subaerial Basalt flows.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	PC	105	WH,RA,DF	55	14.4	279	247	74	88
1	PC	Target ³	WH,DF,RA	55	19.2	120	60	28	88
2	MC	106	DF,WH,RA	55	12.4	231	277	65	31
3	PC	107	WH, DF, RA	55	11.8	269	354	77	39
3	PC	Target ³	WH, DF, RA	55	13.2	132	139	36	39

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), and non-required thinning areas.

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 significantly. The directive for minor and major modifications will be followed for further review.

The sale areas burned in the 1933 Tillamook Fire and Area 2 burned in the 1945 Wilson River Fire. Area 1 and Area 2 were naturally regenerated and Area 3 was planted in 1962. These areas have had no prior stand management

Approximately 13 acres in Area 1 has been inventoried using the Stand Level Inventory (SLI) procedure and the stand has been identified as UDS. According to the district stand summary information (1999), 107 acres were identified as UDS and 38 acres were identified as CSC.

Areas 1 and 3 are single story dense hemlock stands with small pockets of alder, and scattered other conifer. The hemlock is overstocked resulting in poor live crown ratios and slowed diameter growth. Area 2 is a single story Douglas-fir stand with small pockets of alder and scattered alder. The Douglas-fir trees are showing symptoms of Swiss needle cast and are growing on a poor site on the south slope.

See Table 2 for specific stand data.

The brush component in all the sale areas is comprised primarily of sword fern and salmonberry. The salmonberry is continuous in Area 2. The sword fern and salmonberry are very patchy in the dense hemlock but are continuous under the patches of alder.

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. There are some large snags in various states of decay and some hard snags created from wind and snow damage. Only a small portion of Area 1 (13 acres) has been inventoried using the SLI procedure. The down and snag information from this measurement shows that this area does not meet the FMP targets. The remaining portions of the timber sale areas have not been Stand Level Inventoried at this time so down wood and snag information is unavailable. Taking this into consideration during sale preparation, different options such as down wood and snag creation, additional green tree retention, and future stand management and monitoring will be considered in order to achieve FMP targets.

II. DESIRED STAND CONDITION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	105	CSC	UDS	OFS	1
1	105	UDS	UDS	OFS	87
2	106	UDS	REG	OFS	31
3	107	CSC	UDS	LYR	37
3	107	UDS	UDS	LYR	2

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.

In the short term Areas 1 and 3 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 reinitiation 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 prescription for Area 2 will remove the Douglas-fir and retain other species resulting in a varied stand that has open areas and pockets of alder and other conifer. There will also be areas of unmanaged timber in headwalls, stream buffers, and on high landslide hazard locations. This area will be planted with a mix of conifer species. As the future stand is established the residual trees from previous stands will add to complexity of sizes, species and densities.

The timber sale areas will combine with adjacent recently managed thinnings and regeneration harvests, planned future sales, and unmanaged stands to create a mosaic of openings, gaps, variable densities and mixed species stands. As the future stand is established the residual trees from previous stands 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.

A snag and down wood assessment will be done approximately five years following sale completion. Partial cut units with a resulting average diameter over 15 inches will be reviewed for snag and down wood creation at time of harvest.

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. Snag and down wood creation opportunities will be evaluated at this time.

III. PROPOSED MANAGEMENT PRESCRIPTION:

See table 2 for prescription targets

Partial Cut:

In Area 1, the merchantable alder will be harvested and the hemlock and Douglas-fir will be thinned to a basal area range of 120 to 140 square feet. All other species will be reserved.

In Area 3, the hemlock and Douglas-fir will be thinned to a basal area range of 120 to 140 square feet. All other species will be reserved.

Modified Clearcut:

In Area 2, the Douglas-fir will be removed. The hemlock will be thinned to a basal area range of 120 to 140 square feet. All other species will be reserved.

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. Unmanaged hardwood will also be left in headwalls, on high landslide hazard locations that are identified during fieldwork, and throughout Area 2 and 3. Conifer other than hemlock and Douglas-fir will be left on all of the sale areas. There are areas outside of the timbersale boundary adjacent to the sale areas that will be left unmanaged due to Salmon Anchor Habitat strategies. These leave trees function as future source of snags and down wood recruitment across the landscape.

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. Tops from harvesting operation will be left in the areas that are approved for ground yarding.

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.

IV. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	X
Planned Quarter:		4th	

	Conifer	Hardwood	Total
Net Volume (MBF)	1626	299	1925
Stumpage Value (\$/MBF)*	\$119	\$200	
Estimated Gross Value	\$193,494	\$59,800	\$253,294
		Project Costs:	\$70,000
		Estimated Net Value:	\$183,294

**Combined Douglas-fir and hemlock stumpage values*

V. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Miami Forest Road, East Foley Creek Road, Foley North Road, and East Foley Ridge Road. These are currently all weather, crushed rock roads. Approximately 1 mile of existing surfaced road will be improved. This work will bring all roads up to standards described in *the Forest Roads Manual*. See maps for specific road locations and conditions. Approximately 0.5 miles of road will be constructed to provide access to cable yarding areas that were previously ground yarded. Following harvest, roads within the sale areas will be reviewed for closure. See summary document for more information on this topic. The operation will be 88% cable yarding and 12% ground yarding.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct			0.5	
Improve		1.0		
Maintain ²		7.0		
Close/Block ³				
Vacate ³				

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.*

VI. AQUATIC RESOURCES AND WATER QUALITY:

There are no known Type F streams within the sale areas. The Miami River and Anderson Creek are Type F streams that are adjacent to the sale areas. Riparian vegetation along these streams includes a hardwood and conifer mix. Additional streams may be identified during fieldwork and will be managed according to FMP riparian strategies.

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 and adjacent to the 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.

Areas 1 and 2 are within the Miami sub-basin. This sub-basin has been identified as a Salmon Anchor Habitat (SAH) Basin and the most current SAH Basin Strategies will be used at the time of contract development.

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.

VII. T&E SPECIES CONSIDERATIONS:

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist (Clint Smith).

It was determined that in Area 1 and 2 there is potential marbled murrelet habitat within or adjacent to the sale boundary. Surveys have been and will be conducted during the 2004 and 2005 survey season for marbled murrelets. All surveys for marbled murrelet were and will be conducted in accordance with Pacific Seabird Group (PSG) protocol. There have been no marbled murrelet detections during the 2004 survey season.

Surveys for marbled murrelets not required for Area 3 due to the absence of potentially suitable habitat.

It was determined that there is potential northern spotted owl habitat within or adjacent to the sale boundary. Surveys have been and 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. There have been no northern spotted owl detections during the 2004 survey season.

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.

VIII. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The initial assessment from the geotechnical specialists for Areas 1, 2, and 3 is high due to the scattered high landslide hazard locations. 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.

Areas 1 and 2 have been identified as SAH Basin and the most current SAH Strategies will be used at the time of contract development. See the Summary Document for more information.

IX. RECREATION RESOURCES:

Areas 1 and 2 have been designated as Non-Motorized and Area 3 has been designated as Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). No OHV trails were identified within or adjacent to the sale areas. Recreational use common to this area includes hunting, hiking, and camping. The District Recreation Coordinator will be consulted during sale layout and sale contract preparation.

X. CULTURAL RESOURCES:

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

XI. SCENIC RESOURCES:

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

XII. OTHER RESOURCE CONSIDERATIONS:

None known.

XIII. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Table 6. Land Management Classification Summary

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
1	Aquatic and Riparian	22	>1
1	Wildlife Habitat	113	
2	Aquatic and Riparian	8	
2	Wildlife Habitat	48	
3	Aquatic and Riparian	21	

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.