

Pre-Operations Report

Operation Name: Mike Pine
County: Tillamook
Management Basin: Trask

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	RC	271	269
2	MC	122	114
3	MC	112	105
4	MC	99	92
5	MC	68	64
6	MC	87	87
Total		759	731

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 1000 to 3000 feet. The major soil types Osweg (46%), Killam (19%) and Rye (19%). Minor soil types include Rye (14%) and Dovre (2%).

The landform is a southeast trending spur ridge off of Hembre Ridge the slopes are gentle ridgetop and moderated to very steep side-slopes above Hembre Creek and several un-named tributaries of the North Fork Trask River. The underlying rocks are mostly igneous origin intrusive and extrusive mix diabase tabular sills and submarine basalts of the Hembre Ridge Formation. On the east flank of the ridgeline and across the center of the ridge there are bands of sedimentary origin rock of the Tye Formation and Sandstones of the Trask River (unofficial). A large scale landslide deposit is mapped in the east-central portion of the area.

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information⁴

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	RC	326	DF	41	13	170	180	47	269
1		Target ³	DF	41	19	40	19	10	269
2	MC	327	DF	41	13	148	147	40	114
3	MC	326	DF	41	14	170	169	46	105
4	MC	328	DF	41	11	150	224	44	92
5	MC	329	DF	41	16	147	105	37	64
6	MC	330	DF	41	12	133	165	38	87

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 and 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 1933 Tillamook and 1939 Saddle Mountain fires and portions of the sale areas were seeded in 1960-1962. Portions of the sale areas were planted with Douglas fir in 1963-64 or 1969-70. Areas seeded in 1961 were replanted with Douglas fir in 1970-71. Remaining areas were naturally regenerated. These areas have had no prior stand management.

Approximately 295 acres have been inventoried using the Stand Level Inventory (SLI) procedure and identified the stand as UDS. The remaining acres of the sale were identified as CSC according to the district stand summary information (1999). The stand is almost purely Douglas-fir with scattered alder in the draws. Patches of rock exist in the sale area. The stand is low site and off site seed was used in initial reforestation. The result is short trees and slow growth. Adjacent areas have been thinned or clearcut and planted with noble fir.

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 by SNC aerial surveys.

There is scattered alder and hemlock throughout the sale. The alder components of these stands were aerially sprayed to release planted conifer in the 1970's resulting in alder trees with short boles and many limbs. 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, some salmonberry and Oregon grape. The site is dry and the

salmonberry is confined to the draws and low areas. The sword fern and Oregon grape form a continuous forest floor cover.

There are some hard snags created from snow and/or bear damage. SLI shows between 2-5 snags per acre. The area was treated in the 1950's and 60's by cutting down snags to prevent possible fire spreading, resulting in a large amount of scattered large old logs (36"+) in Class 3 and 4 stages of decay and some windthrow in decay classes 1 and 2. SLI reports as much as 4800 cubic feet down wood per acre in some areas.

III. DESIRED STAND CONDITION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	326	CSC	UDS	GEN	269
2	327	CSC	REG	GEN	114
3	326	CSC	REG	GEN	105
4	328	UDS	REG	GEN	92
5	329	CSC	REG	GEN	64
6	330	CSC	REG	GEN/OFS	56/31

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:

The purpose of the operation is to remove off site Douglas fir that is more susceptible to Swiss needle cast and replant with a mix of species. Treating the landscape at this time will increase the management opportunities.

Treatment of 6 areas will create a mosaic over 800 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 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. By leaving the largest and healthiest of the current stand, regardless of species, natural regeneration has a better chance of success to augment planting after harvest.

Stand Level Inventory (SLI) will be scheduled 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 2, 3, 4, 5 and 6, Douglas-fir and merchantable alder will be removed. A diameter limit will be used to select the largest trees to be left. These residual trees will provide future down wood and/or snags. The diameter will be determined after a more comprehensive cruise is completed. All other species will be reserved.

Retention Cut:

In Area 1, an average residual basal area will be at least 33 square feet, primarily in Douglas-fir. Merchantable alder will be removed. All other species will be reserved. Understory vegetation will be enhanced by the additional growing space available, resulting in the early stages of understory re-initiation and layering over time.

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 of precipitous slopes or not reachable by conventional logging techniques will be used for additional green tree retention. These areas may be feasible for treatment during the next rotation.

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%	%		X
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	7131	0	7131
Stumpage Value (\$/MBF)	\$234.64	0	
Estimated Gross Value	\$1,673,250	\$0	\$1,673,250
		Project Costs:	\$147,000
		Estimated Net Value:	\$1,526,250

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Kansas Creek, Trask Cutoff, Hembre Ridge, Zig Zag and Lone Pine Roads. These are currently all weather, crushed rock roads or dirt roads. See maps for specific road locations and conditions.

Approximately 1.2 miles of existing surfaced, 1.4 miles of existing unsurfaced, and 0.2 miles of 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 0.6 miles of road will be constructed to provide access to cable yarding areas. Following harvest, roads within the sale areas will be reviewed for closure. See summary document for more information on this topic.

Kansas Creek road has a seasonal restriction in place. In winter it may be appropriate to use Trask Cutoff Road for hauling. The operation will be 80% cable yarding and 20% ground yarding in Area 1. The remaining areas are 100% cable yarding.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct	0	0	0.6	0
Improve	0	0.2	2.6	0
Maintain ²	7.6	1.3	0	0
Close/Block ³	0	0	3.2	0
Vacate ³	0	0	0	0.5

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:

Michael Creek is a large Type F stream that is adjacent to the sale areas. Kansas Creek is a large perennial Type F stream that is adjacent to the 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.

ODFW fish biologist will work with ODF to identify possible stream enhancement projects to incorporate wood placement into streams with harvest activities or replace culverts that would enhance fish passage to critical areas.

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 area has been reviewed with the ODF Northwest Oregon Area Biologist.

Surveys for northern spotted owls are not required at this time for Mike Pine, due to the absence of potentially suitable habitat. Potential marbled murrelet habitat is being reviewed at this time and the need for surveys will be determined before AOP approval.

T & E Fish species: See Sections VII for listed fish protection measures.

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:

The initial assessment from the geotechnical specialists is high due to the scattered high landslide hazard locations within the operation. The geotechnical specialist will review the sale in the field. The large scale landslide deposit is not likely to be of concern for this harvest operations but will be assessed at the time of field review.

X. RECREATION RESOURCES:

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

OHV trails are present within and adjacent to 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. Large debris (root wads, stumps and boulders) produced from road improvement will be stockpiled for future use to block or restrict trails.

Recreational use common to this area includes hiking, hunting, camping, OHV use, and 4 wheel drive use.

XI. CULTURAL RESOURCES:

The *Tillamook State Cultural Assessment* does list a cultural site adjacent to the proposed sale boundary.

This resource is described as the Hembre Lookout site. The cultural resource classification for this site is Class III – No Protection Required. The district will consult the Public Use Coordinator for appropriate protection measures when necessary such as a visual enhancement project to restore the lookouts historic view.

XII. SCENIC RESOURCES:

The sale areas have a visual classification of Level 3, low sensitivity. The sale will be reviewed by the Public Use Coordinator to determine methods to minimize

visual impact. No scenic impact is expected. See Section XI for further information.

XIII. OTHER RESOURCE CONSIDERATIONS:

SNC plot # T31025 will be affected by road construction. 1-hectare permanent inventory plot #2147068 is adjacent to Area 2.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Table 6. Land Management Classification Summary

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
1	Aquatic and Riparian	76	1
2	Aquatic and Riparian	34	<1
3	Aquatic and Riparian	32	5
4	Aquatic and Riparian	44	2
5	Aquatic and Riparian	11	0
6	Aquatic and Riparian	21	0
6	Recreation	4	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.