

Pre-Operations Report

Operation Name: Electric Point

County: Tillamook

Management Basin: Tillamook Bay and Miami

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	PC	154	143
2	PC	36	35
Total		190	178

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

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a western aspect and are adjacent to Tillamook Bay. They range from 0% to 60%. Elevations range from 160 to 840 feet. The major soil type is Killam.

The landforms are gentle to moderate ridge-line saddles and headwaters of Electric Creek and Larson Creek (Area 1) and a gentle spur ridge above Larson Cove. The underlying rocks in Area 1 are mostly sedimentary origin mudstones and sandstones of the Nestucca Formation with rock of igneous origin subareal flows in the central portion. The underlying rock in Area 2 is mostly sedimentary origin, sandstone with igneous origin rock invasive intrusive basalt.

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information⁴

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	PC	105	WH,SS RA,DF	74	19.9	271	126	47	143
		Target ³	WH,SS RA,DF	74	26.5	157	41	24	143
2	PC	106	WH,SS RA	50,70	17.6	320	190	59	35
		Target ³	WH,SS RA	50,70	23.2	208	71	34	35

1. The source of stand inventory information is from field reconnaissance cruise plots taken in 2005.

2. The net acres are based on orthophotos and GIS and exclude roads, stream buffers, and reserve areas and non-required thinning.

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 were logged in the early 1900s and were naturally regenerated with a mix of species including hemlock, spruce, alder, and Douglas-fir. Neither of these areas have had any prior stand management. The conifer in both of these stands is very dense (approx. 50% to 60% SDI) and has reached stem exclusion, resulting in poor height to diameter ratios, poor live crown ratios, slowed diameter growth, and very little understory. There are some lower density patches that are scattered throughout the sale area that are comprised of more open grown conifer. The crown closure in the larger diameter conifer is beginning to reduce dominant tree crown ratios and cause mortality in the understory conifer and shrub species (mainly sword fern). There are also small patches and stringers of mature alder within the sale area.

Area 1 has been inventoried using the Stand Level Inventory (SLI) procedure and the stand has been identified as UDS. Area 2 was identified as CSC according to the district stand summary information (1999).

See Table 2 for specific stand data.

Down wood in the entire sale area consists of scattered large old logs (36"+) in Class 3 and 4 stages of decay and some windthrow and suppression mortality in decay classes 1 and 2. The SLI measurements taken in Area 1 show that the down wood level in decay classes 1 and 2 is on average 1,100 cubic feet per acre. Total down wood levels in the same area is on approximately 5,300 cubic feet per acre. On average there is 5 down wood logs per acre greater than 24 inches on the large end in decay classes 0, 1, and 2.

Area 2 has not been inventoried using SLI at this time so down wood information is unavailable. Field observations in this stand show that the measured information outlined above reflects generally what is happening in this stand. Both of the sale areas are very susceptible to wind events which are anticipated to generate down wood contributions in the future.

In both of the sale areas, there are a high number of snags in various states of decay and a high number of hard snags created from wind damage. The SLI measurements that represent Area 1 show that the total snag level is on average 20 snags per acre greater than 12 inches DBH, of these approximately 15 snags per acre are greater than 24 inches DBH. On average 3 snags per acre of the total level are greater than 15 inches DBH and in decay classes 0, 1, and 2. Area 2 has not been Stand Level Inventoried at this time so snag information is unavailable. Field observations in this stand show that the measured information basically reflects what is happening in this stand. Both of the sale areas are very susceptible to wind events which are anticipated to keep generating snags in the future.

III. DESIRED STAND CONDITION and VISION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	105	UDS	UDS	General LYR/OFS	12 131
2	106	CSC	UDS	LYR	35

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.

Vision:

Area 1 and 2: These areas have a desired future condition of LYR and OFS. Partial cutting the dense conifer will maintain and improve individual tree growth and promote understory conifer and shrub development as a result of increased light to the forest floor. Small patch cuts will be created by using a diameter cut that will be used to harvest the trees with poor height to diameter ratios. This will result in small openings which will add to the variability in the stand density and promote understory development. Planned snag creation and current levels of snags and down wood, combined with understory development and maintenance, and leaving a residual conifer and hardwood overstory will provide for future horizontal and vertical diversity, ultimately moving portions of this stand towards LYR structure. This stand will be looked at in 15 to 20 years to determine if another entry is needed to maintain structure.

This timber sale combined with adjacent recently managed thinnings, regeneration harvests, future planned sales, and unmanaged stands will create a mosaic across the landscape of openings, small gaps, variable densities, and a variety of stand structures.

IV. **PROPOSED MANAGEMENT PRESCRIPTION AND ANTICIPATED PATHWAY:**

The prescriptions described below are based on the current stand condition such as overall tree and stand growth, species mix, stand density, and stand health.

See table 2 for prescription targets

Partial Cut:

A partial cut will remove the hemlock and spruce that have height to diameter ratio issues. In Area 1, an average hemlock basal area of 100ft² to 120 ft² and a

diameter limit (approx. 26" DBH) for spruce will be used to achieve this. In area 2, an average basal area of 200ft² to 220 ft² will be used. All other conifer and hardwood species will be reserved in both areas. These prescriptions are designed to achieve variable densities throughout the areas. Small patch cuts will be created in both areas with this harvest creating additional growing space for understory development. The need for site preparation for planting is not anticipated in the small patches created by the removal of trees with poor height to diameter ratios, but will be evaluated after harvesting.

Green Tree, Down Wood and Snag Strategies

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

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 resulting from ground yarding will be left in the unit.

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, and tail trees and over time by natural processes.

A down wood and snag assessment will be done on Area 2 during sale layout to determine approximate levels which will be used to help develop down wood and snag creation prescriptions for this area if it is needed, in order to meet the FMP requirements.

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:		4	

	Conifer	Hardwood	Total
Net Volume (MBF)	2852	0	2852
Stumpage Value (\$/MBF)*	\$211	0	
Estimated Gross Value	\$601,772	0	\$601,772
		Project Costs:	\$156,380
		Estimated Net Value:	\$445,392

***Combined hemlock and spruce stumpage values based on harvest type.**

VI. HARVESTING AND ACCESS CONSIDERATIONS:

Area 1 is accessed via Patterson Ridge Road and Electric Creek Road. These are currently all weather crushed rock roads. Area 2 is accessed via Larson Creek Road. This road is currently a rocked road and is blocked by a gate

Approximately 5 miles of existing surfaced roads and .5 miles of legacy roads will be improved which includes grading, rocking, culvert replacement, spot rocking, potential sidecast pullback, and adding new culverts. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately .55 miles of road will be constructed in order to provide access to cable yarding areas and will be closed following harvest. Ground yarding roads will also be closed and water-barred following harvest. See summary document for more information on this topic.

A combination of cable yarding systems (40%) and ground yarding (60%) will be used. Ground yarding will generally be limited to slopes under 35%.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct			.55	
Improve		3	2	.5
Maintain ²				
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.*

VII. AQUATIC RESOURCES AND WATER QUALITY:

A watershed analysis has been completed for the Miami and Tillamook Bay Basins. Approximately 16 acres of Area 1 falls into the Miami basin and the remaining acres are in the Tillamook Bay Basin. Watershed analysis action items will be reviewed during sale layout.

Electric Creek is a small Type F stream located within Area 1. There are potentially additional unnamed small Type N streams within both of the sale areas. These streams will be located, 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 prior to 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.

Approximately 16 acres of Area 1 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.

These 16 acres were also identified as part of the Salmon Anchor Habitat Basin Plans approved in June 2005. See Salmon Anchor Summary Table for tracking of acres managed in each basin and list of sales in Basin Plans.

ODF will work with an ODFW fish biologist to identify possible stream enhancement project areas.

Electric Creek delivers water to a known water right approximately 4,000 feet downstream from Area 1. An unnamed stream that is directly adjacent to Area 2 delivers water to a known water right.

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.

It was determined that there is potential marbled murrelet habitat within and adjacent to the sale boundary.

Surveys have been and will be conducted during the 2005 and 2006 survey season for marbled murrelets. All surveys for marbled murrelet were and will be conducted in accordance with Pacific Seabird Group (PSG) protocol. There were

several murrelet detections in a portion of Area 1. A Marbled Murrelet Management Area (MMMA) will be designated after the 2006 survey season and the sale boundary will be modified to exclude any area that falls within the MMMA.

The sale area is adjacent to Marbled Murrelet Management Areas (MMMA's). Seasonal restrictions will be required for some operations on this sale.

It was determined that there is potential northern spotted owl habitat within and adjacent to the sale boundary.

Surveys have been and will be conducted during the 2005 and 2006 survey season for northern spotted owls. All northern spotted owl surveys were and will be conducted in accordance with USFWS endorsed protocol. At the completion of the 2005 survey season there have been no northern spotted owl detections.

T & E Fish species: See Sections VII, and IX 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 hazard risk assessment is (done by Dave Michael)

Approximately 16 acres of Area 1 has 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.

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. No OHV trails were identified within or adjacent to the sale areas. Recreational use common to this area includes hiking, hunting, and OHV riding.

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 area has a visual classification of Level 1, high sensitivity. The sale will be reviewed by the Public Use Coordinator to determine methods to minimize

visual impact. Visual impact will be minimal due to the amount of residual trees being left in the sale area because this sale is a partial cut.

XIII. OTHER RESOURCE CONSIDERATIONS:

There are also 3 corners that are near where the sale boundary is planned to be located. These will be field located and protected from harvesting operations. There is also a transmission line that is located the sale boundary in Area 1. During sale layout Pacific Light and Power will be contacted to determine protection measures.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

These areas contain Focused Stewardship and Special Stewardship, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.

Both areas also contain Focused Stewardship, Visual. See Section XII, Scenic Resources, for the management guidelines to be utilized.

Area 1 contains Special Stewardship, Transmission. See Section XIII, Other Considerations, for the management strategies to be utilized.

These areas also contain Focused Stewardship, Wildlife Habitat, which in this case identifies that the sale is in a Salmon Anchor Habitat basin. Refer to sections Section VII, Aquatic Resources and Water Quality and Section IX, for management guidelines to be utilized.