Pre-Operations Report

Operation Name: Kilo Thin
County: Linn
Management Basin: Rock Creek Basin

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	PC	118	93
II	PC	71	66
Total		189	159

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The operation is located within a temperate climate area. Typically the fall and winter seasons are wet. This area receives approximately 89 inches of rainfall per year. The operation is located within the *Tsuga heterophylla* Zone (Natural Vegetation of Oregon and Washington, Franklin & Dyrness, 1973).

The landforms are moderate to steep slopes below Tom Rock and above two un-named tributaries to Thomas Creek. The underlying rock in sale area are igneous origin rock Lava flows and flow breccia of andesite, basaltic andesite, and basalt also includes interbedded volcaniclastics.

The average slope within the operation is 60%. The soils within the operation are 5% Akerson and 95% Pechuck. Both Akerson and Pechuck are well-drained, fine textured colluvial soils. The 50 year site index for Douglas-fir is 115 feet. The elevation of the operation ranges from 1,660 feet to 3,080 feet.

II. CURRENT STAND CONDITION:

Area I consists of stands ranging between 40 to 69-years-old that are currently classified as Understory. The overstory consists of Douglas-fir, western hemlock and the occasional big leaf maple. The understory consists of Oregon grape, salal, vine maple and ferns. There is a total of 3,200 cubic feet of down wood in all decay classes per acre and 2 snags per acre within Area I. There is less than 20 cubic feet of sound down wood per acre. (SLI 2003)

Area II consists of a 27-year-old stand that is currently classified as Understory. This stand was pre-commercially thinned in 1991. There is less than 20 cubic feet of sound down wood per acre and a total of 770 cubic feet of sound down wood per acre in Area II. There is 1 snag per acre. (SLI 2004)

Table 2. Stand Inventory Information

Area	Prescription	Stand ID [1]	Species	Age	DBH	BA	TPA	SDI	Acres [2]
I	**PC-M**	**Target [3]**			**15**	**137**	**102**	**30**	
		12744	DFWH	40	13	201	225	55	43
		12703	DFWH	69	12	156	191	44	75
II	**PC-M**	**Target [3]**			**13**	**100**	**112**	**30**	
		12587	DF	27	12	174	235	52	71

1 The source of stand inventory information for 12703 is SLI from 2003; stand 12587 is from field recon during 2004; stand 12744 is from cruise information from 1999.
2 The acres are based on GIS and include roads, streams buffers, reserve areas, etc.
3 The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED STAND CONDITION:

According to the District's landscape design for the Rock Creek Basin, the desired future condition of Area I is for a general stand condition and Area II is Older Forest Structure.

The anticipated pathway for Area I is as follows:
- this area will receive a moderate partial cut as part of this operation which will improve the growing condition of the residual trees,
- in approximately 15 years, this area may be evaluated as a candidate for final harvest.

The anticipated pathway for Area II is as follows:
- this area will receive a moderate partial cut as part of this operation which will improve the growing condition for the residual trees,
- in approximately 15 years, this area will be evaluated for another partial cut,
- at the next commercial entry, snags and down wood will be evaluated using Stand Level Inventory to determine if a development project is needed.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest [1]	Desired Future	Acres
I	12744	CSC	UDS	GEN	43
	12703	UDS	UDS	GEN	75
II	12587	UDS	UDS	OFS	71

1 The stand is expected to develop into this condition in the five to ten years after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

Existing downwood in both Areas I and II will be retained. Snags will be retained that do not pose a safety hazard, but some snags will be felled during the operation. No snags or down wood will be added to the stand at this entry due to the size of timber.

Area I will receive a moderate partial cut leaving a residual stand with a SDI of 30%. The residual stand will consist of the largest and best trees.

Area II will receive a moderate partial cut leaving a residual stand with a SDI of 30%. All western hemlock will be reserved from harvest. The residual stand will consist of the biggest and best trees.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		x
Planned Quarter:		4	

	Conifer	Hardwood	Total
Net Volume (MBF)	780	0	780
Stumpage Value ($/MBF)	$250	0	
Estimated Gross Value	$195,000	0	$195,000
		Project Costs:	$89,300
		Estimated Net Value:	$105,700

VI. TRANSPORTATION PLANNING AND HARVESTING:

This unit has good ridge top access to facilitate a cable yarding operations. The side slopes range from 10% to 80% over the unit. Landings will be utilized along the Tom Rock Ridge road, TR 400 and 1000 Line roads for cable logging

settings. A small amount of ground logging may be possible where slopes are less than 35%. Minor spur road construction less than 500 feet may be needed as a purchaser choice road off of the 1015 line. No other road construction will be necessary. Cable corridors will need to be run through no harvest areas in order to facilitate logging in Area I. Very few trees, if any, will need to be cut for the cable corridors in the no harvest areas.

Mainline roads provide access to within a 1/4 mile of the operation. These roads have a crushed rock all weather surface. The TR 400 will have culvert replacements and surfacing upgrades from pitrun to a crushed rock surface.

Required Project work:

- Improve the TR 400, 1000 line, 1010 line, and 1015 - replace undersized culverts, spread 4" lift of crushed rock on 3.8 miles = Crush approx. 5,500 cy total cost of $ 86,000.
- Road brushing 2.3 miles cost of $3,300

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0	0
Improve	0	3.8	0	0
Maintain	7.0	3.8	0.75	0
Close/Block	0	0	0	0
Vacate	0	0	0	0

* For determination of road class either use results of the Harvest and Habitat roads classifications, or if this information is not available then low use roads are spurs, medium use roads are collectors and high use roads are mainlines. Use these same criteria when comparing the total for all AOP sales to the IP plans.

VII. AQUATIC RESOURCES AND WATER QUALITY:

This operation is not in proximity to any streams where listed fish are present.

The streams within this operation flow into Thomas Creek. There are approximately 13 small, non-fish bearing streams within the operation. The overstory on these streams consists of red alder, Douglas-fir and western hemlock. The understory consists of salmonberry, vine maple, Oregon grape and ferns.

Management activities within riparian areas of streams will focus on achieving properly functioning aquatic and riparian habitat conditions over time. Riparian

Management Areas (RMAs) will be established immediately adjacent to streams for the purpose of protecting aquatic and riparian resources and maintaining the functions and ecological processes of the streams. The Management Standards for Aquatic and Riparian Areas found in the *NWO State Forests Management Plan* (pg. J-1 – J-16) will be followed within these RMAs.

The following measures will be used to minimize impacts to streams: 1. No ground based equipment will be allowed within 25 feet of the non-fish streams, 2. There will be seasonal restrictions as to when ground yarding and road construction will be allowed (i.e. during dry seasons), 3. Erosion control measures will be used on areas of soils exposed during road construction or improvement, 4. Road ditches will be disconnected from streams, 5. Road maintenance will be required during log hauling.

VIII. T&E SPECIES CONSIDERATIONS:

This operation was surveyed for Northern Spotted Owls (NSO) with one response during the 2004 survey season from the East Thomas NSO. The operation will be surveyed again during the 2005 survey season. This operation is located within the East Thomas Northern Spotted Owl site. A biological assessment has been drafted by the Northwest Oregon Area biologist. This assessment will be reviewed by both the Oregon Department of Fish and Wildlife and the US Department of Fish and Wildlife. The biological assessment and comments from both agencies will be reviewed by the Program Director and the Area Director who will then determine how to proceed with the planned operations. The draft biological assessment states that the Kilo Thin will not impact “suitable” habitat.

The operation was checked against the Oregon Natural Heritage Program’s database of known plant locations. The operation was also checked against district knowledge for any listed plant location. No records of threatened, endangered, rare or candidate plant species were found within the operation.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The initial assessment from the geotechnical specialist is low for Area II and for Area I the initial assessment is moderate. The very few steep slopes along the east most tributary (east boundary of Area I) are the highest hazard and risk relationship. The geotechnical specialist will be consulted during sale layout and the need for field review will be assessed.

X. RECREATION RESOURCES:

There are no developed recreational resources within the operation area.

XI. CULTURAL RESOURCES:

There are no known cultural resources within the operation.

XII. SCENIC RESOURCES:

There are no scenic resources located within the operation.

XIII. OTHER RESOURCE CONSIDERATIONS:

There are no other resource considerations.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Table 6. Land Management Classification Summary

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
I	Aquatic and Riparian Habitat	34	3
	Energy and Minerals	0	2
II	Aquatic and Riparian Habitat	13	2

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. For example, a particular acre can be classified as Focused Stewardship for Aquatic and Riparian, Recreation, and Scenic resources.