

Pre-Operations Report

Operation Name: Ironman
County: Clatsop
Management Basin: Quartz

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Partial Cut - Moderate	342	287
2	Modified Clearcut	57	52
3	Modified Clearcut	52	47
Total	Modified Clearcut	109	99
Total	Partial Cut	342	287
Total		451	386

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Areas 1 and 2 are located on the gentle slopes below Flat Iron Mountain extending west over the small spur ridge running northwest from Flat Iron Mountain. Areas 1 and 2 drain north for approximately five thousand feet to the Nehalem River. Area 3 is located on the gentle slopes above the headwaters of Spruce Run Creek. Areas 1 and 2 might be located on a large-scale ancient landslide. The feature is similar to, but not as developed as, known large-scale ancient landslide features to the north and east by Quartz Creek and Osweg. Ancient large-scale landslides may be due to major faulting in the area as well as to the rock dipping down-slope in that area.

All three sale areas are within the Douglas-fir vegetation zone. Elevations range from 800 to 2100 feet above sea level. The soil types present throughout the three areas are Killiam (Km), Pinochle (Pk) and Rye (Rj). These soils are moderately deep, well drained, moderately fine to medium textured soils. Areas 1 and 2 are underlain by a combination of igneous and sedimentary origin rocks. Area 3 is entirely within the sedimentary origin rock. The igneous rocks are of the Grande Ronde Basalt formation, invasive basalt dikes and sills of the Columbia River Basalt Group, and the older Cole Mountain Basalt formation, intrusive basalt sills and dikes. The sedimentary rocks are of the informal Hamlet formation, primarily mudstone with some sandstone. Site indices are 100-130 ft. (II+ to III-) for Douglas-fir, and 100-110 ft. (III+ to III-) for western hemlock. Timber is generally windfirm on these soils.

II. CURRENT STAND CONDITION:

Area 1: The current stands are generally 45 to 60 years old, and are composed primarily of small to moderate sized Douglas-fir, with some inclusions of hemlock, true firs, and hardwoods. Some of the stands are under stocked with conifer, and there are large pockets of red alder throughout Area 1. Area 1 is

categorized as 60% UDS, and 40% CSC. The stand density is between 24 and 67.

Area 2: The current stands are composed of 56 to 59 year old Douglas-fir, mixed with some hemlock and isolated pockets and stringers of alder. The stand is categorized as UDS (66%) and CSC (34%), and the stand density index is between 27 and 50.

Area 3: The current stands are generally 54 to 64 year old Douglas-fir, mixed with hemlock, noble fir, and red alder. The stand is categorized as 96% CSC, and the stand density index is between 61 and 76.

The understory in all three areas consists of sword fern, Oregon grape, vine-maple, huckleberry, and salmonberry.

The existing amount of snags and large woody debris is not known at this time. Evaluation of existing snags and large woody debris will be conducted during actual sale layout.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
1	PC - M	2555	DF/H	44	11	98	159	29	46
		2567	RA/DF	59	14	68	64	24	10
		2568	RA/DF	59	14	68	64	24	3
		2569	DF	60	22	123	48	27	75
		2594	DF/H	58	17	150	97	37	24
		2595	DF/H	57	16	243	179	62	4
		2618	DF/H	57	16	243	179	62	25
		2622	H/DF	60	17	186	113	45	46
		2646	H/DF	60	17	268	178	67	20
		2661	DF	55	20	236	112	55	7
		2663	DF	59	17	201	123	49	4
		2666	DF	36	8	82	241	27	23
				Target ³	DF,WH,RA		21	120 -140	55
2	MC	2569	DF	60	22	123	48	27	3
		2586	DF/RA	57	18	206	123	50	17
		2594	DF/H	58	17	150	97	37	32
				Target ³	DF,WH,RA			5	
3	MC	2729	DF/H	65	16	302	207	76	6
		2734	DF/H	59	15	244	212	64	33
		2740	DF/H	63	17	303	204	76	2
		2759	DF/H	59	18	254	145	61	6
				Target ³	DF,WH			5	

1 The source of stand inventory information is OSCUR from 2002. Age shown is as of 2005.

2 The acres are based on GIS and exclude 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/VISION:

Areas 1, 2, and 3 do not have a designated complex desired future condition. The desired condition of these stands are healthy vigorous stands of mixed conifer and hardwoods.

The goal of the harvest operation in Area 1 is to develop the stand into UDS structure in the short term. At the next entry, in 10-15 years, the stand will be a mixed conifer with a Douglas-fir, western hemlock, and noble fir overstory with some western hemlock, western red cedar, and red alder in the understory. Over the long term this stand has the potential to develop into a LYR structure and serve as potential replacement to an existing LYR stand once the DFC goals are met for this basin.

The goal of the harvest operations in Areas 2 and 3 is to work towards the goal of 15% REG for the Quartz Basin. By harvesting in these stands and planting a mix of conifer species and red alder, future opportunities will be increased for management decisions. Five to seven of the largest conifer trees per acre will be left to provide a source for natural regeneration and future downed wood and snags. A precommercial thinning is anticipated at 12-17 years when crowns close followed by a commercial thinning at 30-40 years of age to ensure continued growth. At age 45-50 the stand will be evaluated for either additional thinning or regeneration harvest.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	2555	UDS	UDS	GEN	46
	2567	UDS	UDS	GEN	10
	2568	UDS	UDS	GEN	3
	2569	UDS	UDS	GEN	75
	2594	UDS	UDS	GEN	24
	2595	CSC	UDS	GEN	4
	2618	CSC	UDS	GEN	25
	2622	CSC	UDS	GEN	46
	2646	CSC	UDS	GEN	20
	2661	CSC	UDS	GEN	7
	2663	CSC	UDS	GEN	4
	2666	UDS	UDS	GEN	23
	2	2569	UDS	REG	GEN
2586		CSC	REG	GEN	17
2594		UDS	REG	GEN	32
3	2729	CSC	REG	GEN	6
	2734	CSC	REG	GEN	33
	2740	CSC	REG	GEN	2
	2759	CSC	REG	GEN	6

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:

Area 1 will be autemark thinned to a stand density between 25 – 35%. The result of this partial harvests should be increased growth to individual trees, and development of conifer and deciduous understory species as the more open tree canopy allows light to reach the forest floor. Minor species such as western red cedar, will be reserved from cutting. Other minor species such as Pacific silver fir, noble fir, and spruce will be favored as leave trees to promote stand diversity. Large alder pockets and areas where conifer stocking is already low will be left unthinned. To increase down woody debris, operations in Area 1 will be required to top trees prior to yarding and only yard merchantable logs. (FMP, “Landscape Management Strategy 3d. Down Wood”, pages 4-54 and 4-55). The entire stand should began to approach a UDS/LYR condition in 10-15 years.

Areas 2 and 3 are both modified clearcuts that will be replanted with a mixture of conifer species, including Douglas-fir, western hemlock, true-firs and some western red cedar. It is anticipated that red alder will naturally seed in portions of exposed to mineral soil.

Snags: In all areas, all existing snags will be retained unless deemed to be safety hazards. In MC areas, if pre-sale activities determine that fewer than two hard snags per acre exist, opportunities for snag creation or leaving additional live green trees will be implemented to supplement landscape snag levels as defined by the Forest Management Plan. In PC Area 1, it is anticipated that

additional snags will develop during yarding activities by leaving, topping, or girdling damaged rub trees, tail trees, lift trees, and/or intermediate support trees.

Green Trees: In MC Areas 2 and 3, an average of five to seven green trees per acre will be scattered and/or clumped throughout the areas. A combination of methods will be implemented to achieve the green tree retention requirements such as clumping and scattering at least 25% in the uplands and placing some within stream buffers and outer RMA areas. In addition, individual and small clumps of non-merchantable alder may be left in operationally feasible areas to provide short term snag recruitment for cavity nesting birds. In all sale areas minor species such as red cedar may be reserved from cutting, and any existing larger remnant trees will be reserved from cutting.

Downed Wood: For all harvesting activities, all existing downed woody debris will be retained. In MC Areas 2 and 3, additional conifer trees and/or conifer logs will be retained to meet the 600 cubic foot/acre landscape target for down wood as prescribed in the FMP and Implementation Plan. Obvious defect in conifer logs will be bucked out in the unit to enhance downed wood levels. In the partial cut area, to increase down wood levels, operations will be required to top trees prior to yarding and to yard only merchantable log segments to roadsides.

Site preparation will be accomplished through normal harvesting activities. Mechanical slash piling is anticipated on areas with heavy to dense accumulation of slash. Ground applied herbicides will be prescribed for competing vegetation occupying the planting site to ensure rapid establishment of planted seedlings. Planting in Areas 2 and 3 will be at 300–350 trees per acre with the following species composition: 50% Douglas-fir, 30% western hemlock, 10% true-firs, and 10% western red cedar. Mountain beaver trapping will focus on the sword fern/alder type within the stand. Animal damage through big game browse to conifer seedlings is anticipated to be high in this area. Tree protection will be prescribed to the newly planted conifer species; Douglas-fir will receive paper bud caps, western red cedar will receive tubes at initial planting.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100 %	%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter:		1 st	

	Conifer	Hardwood	Total
Net Volume (MBF)	6,414	198	6,612
Stumpage Value (\$/MBF)	\$350	\$300	
Estimated Gross Value	\$2,244,900	\$59,400	\$2,304,300
		Project Costs:	\$140,000
		Estimated Net Value:	\$2,164,300

VI. HARVESTING AND ACCESS CONSIDERATIONS:

Access is Highway 26 to Quartz Creek Road and August Fire Road.

For sale access, approximately 1.3 miles of new road will be needed. Since this area has an established road network, utilizing the existing infrastructure and constructing a few minor spurs was determined the most sound access/harvest system. The majority of the road construction involves accessing Area 1 and will be used for future harvesting.

Approximately 2.5 miles of road improvements are planned in the Lost Lake Area. Two Type F stream upgrades on Spruce Run Creek may be replaced with this sale if deemed necessary.

A combination of cable yarding systems and ground yarding will be planned for harvesting. Cable systems will be used on the steeper slopes. Ground yarding will generally be limited to slopes under 35%.

Table 5. Transportation Management Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0.5	0.8	0
Improve	0	1.5	1.0	0
Maintain	3.0	3.5	1.5	0
Close/Block	0	0	0	0
Vacate	0	0	0	0

VII. AQUATIC RESOURCES AND WATER QUALITY:

There are no Type F streams within or adjacent to the sale area.

Type N Streams: There are perennial Type N stream in all sale areas.

All streams will be examined to determine stream type and classification during sale layout, and then the specific riparian management area strategies required in the FMP and SAHA Strategies will be implemented. The FMP riparian management area strategies that will be implemented are found in the FMP, Appendix J, "Management Standards for Aquatic and Riparian Areas", pages J-1 through J-16.

The in-stream work will be conducted during in-stream work periods established by ODFW.

VIII. T&E SPECIES CONSIDERATIONS:

The ODF Northwest Area Biologist determined on March 4, 2004 that none of the sale areas contained suitable habitat for Marbled Murrelets.

All sale areas were surveyed to protocol for northern spotted owl in 2004 and 2005 with no detections.

The sale area was checked against district knowledge for any listed plant location. The sale area was also checked against the Oregon Natural Heritage Program (OHNP) database of known listed plant locations. No listed plant records were identified within the sale area.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The topographic map indicates only a few isolated high landslide hazard locations in the western part of Area 1 along both sides of spur ridge, in the southeastern part of Area 2 along a spur ridge, and along the southwestern edge of Area 3. The risk associated with the steep slopes in Area 1 is unclear and the geotechnical specialist will be consulted during sale layout and the need for field review will be assessed. The risk in Areas 2 and 3 is low and the geotechnical specialist may be consulted if concerns arise during sale layout.

X. RECREATION RESOURCES:

This area is seeing increasing recreation traffic associated with use at Lost Lake. It is possible that the increased use will result in more dispersed camping in the area. There are current efforts to create a trail system through the Quartz Creek Basin that will connect the Bloom Lake Trailhead with Henry Rierson Spruce Run Campground. A portion of the trail may be within Areas 1 and 2. If the trail

system is in place prior to harvest, appropriate measures will be taken to protect and rehabilitate any portions within these areas.

XI. CULTURAL RESOURCES:

No known cultural resources are within or adjacent to the operation.

XII. SCENIC RESOURCES:

The sale area is in a landscape of low visual sensitivity (Level 3).

XIII. OTHER RESOURCE CONSIDERATIONS:

All sale areas are within ODF managed lands. No land surveying is needed at this time. All survey monuments will be protected during harvesting.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

All acres in Areas 1-3 are classified as "general management."

Boundary lines depicted on Attachment C are approximate; exact locations and site specific management activities will be determined during the sale preparation process. (This portion only to be included if LMCS classifications are actually depicted on Exhibit C.)