

Pre-Operations Report

Operation Name: Cedar Forks Combo
County: Marion
Management Basin: Cedar Creek Basin

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	MC	24	24
II	PC	5	5
III	PC	42	40
IV	MC	32	30
V	PC	113	95
VI	PC	12	11
VII	MC	24	24
Total		252	229

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 73 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 gentle to moderate slopes in the headwaters of Cedar Creek and along the east side up to the spur-ridge divide with Abiqua Creek. The underlying rock is about half igneous origin rocks, lava flows and flow breccia, andesite, basaltic andesite and basalt, includes interbedded volcanoclastics. Two large bands of sedimentary origin rock run through Areas I, II, III & V, VI, VII this underlying rock is poorly sorted and poorly bedded, fine- to coarse-grained tuffaceous siltstone, sandstone, pebble conglomerate, agglomerate, volcanic cobble conglomerate, air-fall tuff, and rare basaltic andesite flows.

The soils within the operation are 40% Akerson and 60% Pechuck. Both Akerson and Pechuck are well-drained, fine textured colluvial soils. The average 50 year Douglas-fir site index is 130 feet. The elevation within the operation ranges from 1,780 to 2,120 feet.

II. CURRENT STAND CONDITION:

This operation is located within Douglas-fir stands that range in age from 63 to 119 years. Area II is classified as a Layered stand while the remaining areas are Understory. These are stands with predominately tall Douglas-fir in the overstory, no trees in the midstory, and heavy concentrations of salal in the understory along with vine maple. Only the stands along the RMAs (stands 12228 & 12218) have any diversity. These stands have a mixture of Douglas-fir, red alder, western red cedar and western hemlock in the overstory of differing heights. The understory is more diverse with salal, vine maple, salmonberry and ferns.

Areas II, III, IV and V were commercially thinned in the mid 1970's to the early 1980's.

On average across the entire operation there are approximately 3 snags per acre and 150 cubic feet per acre of sound down wood. Across the operation there is an average total of 1000 cubic feet per acre of down wood in all decay classes. (SLI 2002, 2003)

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
I	MC	Target ³			30	48	6	6	
		12226	DF	65	19	230	119	55	24
II	PC-M	Target ³			28	200	32	35	
		12766	DF	119	27	320	84	66	5
III	PC-M	Target ³			25	150	42	30	
		12226	DF	65	19	230	119	55	31
		12224	DF	110	22	387	141	86	11
IV	MC	Target ³			34	22	6	7	
		12227	DF	63	19	232	123	55	32
V	PC-M	Target ³			34	101	30	35	
		12226	DF	65	19	230	119	55	7
		12228	DF	66	19	180	96	43	18
		12225	DF	107	30	296	59	58	55
		12128	DF	101	27	296	72	60	17
		12050	DF	73	21	269	111	61	15
VI	PC-M	Target ³			26	150	38	30	
		12050	DF	73	21	269	111	61	12
VII	MC	Target ³			36	53	6	8	
		12215	DF	70	22	210	82	47	24

1 The source of stand inventory information is SLI from 2002 and 2003. Stand inventory for 12128 is from OSCUR 1999.

2 The acres are based on orthophotos 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:

The desired future condition for Areas II, III (26%), and V (80%) is for Older Forest Structure and non-complex stands in Areas I, IV, VI, VII and the remaining portions of III and V as shown on Map B.

The anticipated pathway for Areas I, IV, and VII is as follows:

- these areas will receive a modified clearcut as part of this operation,
- the slash resulting from logging will be piled and burned; traps will be set for mountain beavers to prepare the site for planting,
- the areas will be promptly reforested with Douglas-fir and some red alder and be reclassified as Regeneration stands,
- the areas will be periodically checked to determine if interplanting, vegetation management or mountain beaver trapping are needed,
- when these stands reach approximately 10 years of age, they may be evaluated for possible pre-commercial thinning opportunities.

The anticipated pathway for Area V is as follows:

- this area will receive a moderate partial cut,
- the slash resulting from logging will be piled and burned, vegetation control and mountain beaver trapping will occur to prepare the site for planting,
- following the operation, open areas of the unit will be planted with Douglas-fir seedlings, (see Proposed Management Prescription section below)
- there will be no further entries to manage the overstory trees within this area,
- the Douglas-fir seedlings will be periodically checked to determine if interplanting, vegetation management or mountain beaver trapping need to occur to help establish the seedlings,
- when the planted Douglas-fir trees reach approximately 10 years of age they may be evaluated for possible pre-commercial thinning opportunities,
- At a later date, snags and down wood will be evaluated using Stand Level Inventory methods to determine if a development project is needed to help the area achieve the desired future condition of Older Forest Structure.

The anticipated pathway for Area II is as follows:

- This area will receive a moderate partial cut which will improve the growing condition for the residual trees,
- No further entries are envisioned to manage the overstory,
- At a later date, snags and down wood will be evaluated using Stand Level Inventory methods to determine if a development project is needed to help the area achieve the desired future condition of Older Forest Structure.

The anticipated pathway for Areas III and VI is as follows:

- These areas will receive moderate partial cuts which will improve the growing condition for the residual trees,
- In approximately 15 years, these areas would be candidates for final harvest.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
I	12226	UDS	REG	GEN	24
II	12766	LYR	LYR	OFS	5
III	12226	UDS	UDS	GEN	31
	12224	UDS	UDS	OFS	11
IV	12227	UDS	REG	GEN	32
V	12226	UDS	UDS	GEN	7
	12228	UDS	UDS	OFS	18
	12225	UDS	UDS	OFS	55
	12128	UDS	UDS	OFS	17
VI	12050	UDS	UDS	GEN	15
	12050	UDS	UDS	GEN	12
VII	12215	UDS	REG	GEN	24

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:

The objective within the entire operation is to **retain all down wood** currently within the stands. Snags will be retained that do not pose a safety hazard, but some snags may need to be felled during the operation. The objective is to retain all of the snags, with a minimum of 2 snags per acre within the stand at the completion of harvest.

Areas I, IV and VII will be **modified clearcuts**. Approximately 5 to 7 green trees per acre will be retained within the units. At least 600 cubic feet per acre of sound down wood will remain within all of the areas following the harvest. This additional down wood will be retained within the operation by utilizing cull material that results from logging. To prepare the site for planting, the slash resulting from the harvest will be piled and burned on tractor ground. The cable ground in Area I will be broadcast burn for site preparation. Traps will be set for mountain beaver in the area. The areas will be replanted with Douglas-fir and some alder.

Area II will receive a **moderate thinning to a SDI of 35%**. This will be a **diameter limit thin**. All trees between 16 to 24 inches will be removed leaving a residual stand with both large diameter dominant trees and small diameter co-dominant trees. Hardwoods will be reserved from harvest. If needed, open areas may be underplanted with western red cedar.

Areas III & VI will receive a moderate thinning. These stands will be thinned to a SDI 30%. All hardwoods and Douglas-fir trees displaying “witches broom” or “platforms” will be reserved from harvest.

Area V will receive a moderate thinning of variable density. The area will be thinned to a residual SDI 35%. Very few, if any, trees will be removed along RMAs (stands 12128 and 12228). The thinning will be heavier outside of the RMAs. In some places within the area the residual basal area will be 260 square feet per acre and in others it may be as low as 60 square feet per acre. On average the basal area per acre across all of Area V will be 100 square feet. In the most open patches of Area V, approximately 6 to 8 of the largest trees per acre will remain. The entire Area V will have an average of 30 trees per acre. Hardwoods will be reserved from harvest. The more open spaces within Area V will be planted with Douglas-fir seedlings. Site preparation of these areas for planting will be accomplished by using an excavator to pull vine maple and salal. This brush and logging slash will be piled and burned. These areas will also receive a chemical treatment to control competing vegetation to allow the seedlings to become established. Traps will be set for mountain beaver in the area.

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:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	8,266	0	8,266
Stumpage Value (\$/MBF)	\$350	\$200	
Estimated Gross Value	\$2,893,100	0	\$2,893,100
		Project Costs:	\$5,000
		Estimated Net Value:	\$2,888,100

VI. TRANSPORTATION PLANNING AND HARVESTING:

The operation is accessed via the “Grade Road”, a county road to the Abiqua-100 (A-100) to the Cedar Creek road into the sale area. The county road and the first mile of the A-100 are good quality crushed rock mainline roads that are in good condition. The last 1.6 miles into the sale area is on pitrun or large crushed rock surfaced road. The last 1.6 miles of road are suitable for summer use, the surfacing may hold up to winter use but the depth of rock is marginal for heavy

winter haul. Since most of ODF ownership in this area is on gentle ground suitable for ground yarding during dry periods of the year, the roads are also best suitable for dry weather hauling. Minimal surfacing has been used in the past on roads accessing ODF land. The Bonner Cabin Thin '05 timber sale adjacent to this sale is scheduled to improve/maintain roads in this area so no further work is necessary at this time.

The majority of the sale area is suitable for ground harvesting. The network of existing roads and the gentle terrain lends itself to this type of harvest. It appears that possibly one new Purchaser select road approximately 0.2 miles may be needed in Area I to the north end of the sale. A closer review during sale preparation will be necessary to determine if all of Area I can be ground yarded or if a cable setting is needed.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0	0.2
Improve	0	0	0	0
Maintain	0	3	2	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 North Fork Cedar Creek, Middle Fork Cedar Creek and a tributary to the South Fork Cedar Creek are located within the operation. These non-fish bearing streams all flow into Cedar Creek. The vegetation along these streams consist of Douglas-fir, alder, western hemlock and western red cedar in the overstory. Vine maple, salmonberry, salal, and ferns can be found in the understory along these streams.

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 with no response during the 2003 and 2004 survey seasons. The operation will be surveyed again during the 2005 survey season.

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. There are no steep slopes in the operation. The geotechnical specialist may be consulted if concerns arise during sale layout.

X. RECREATION RESOURCES:

This operation is located behind a locked private owner's gate. There may be hunting and hiking that occurs in the area.

XI. CULTURAL RESOURCES:

There may be an old homestead dump located within Area IV. Pre-operation reconnaissance revealed no visible cultural resource features or artifacts, however there exists a high probability of discovery during road construction. If discovery is made, the cultural resource will be protected and field staff will consult with the Cultural Resource Specialist in Salem.

XII. SCENIC RESOURCES:

There are no scenic resources within the operation.

XIII. OTHER RESOURCE CONSIDERATIONS:

To protect air quality, the pile burning will comply with the Oregon Smoke Management Plan. The Smoke Management Plan is designed to reduce emissions from prescribed burning in western Oregon and to minimize smoke intrusions into designated population areas.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Table 6. Land Management Classification Summary

Area	LMCS Subclass	Focused Stewardship	Special Stewardship
IV	Aquatic & Riparian Habitat	1	0
V	Aquatic & Riparian Habitat	16	11
VI	Aquatic & Riparian Habitat	1	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. For example, a particular acre can be classified as Focused Stewardship for Aquatic and Riparian, Recreation, and Scenic resources.