

Pre-Operations Report

Operation Name: All A Board
County: Benton
Management Basin: Green Mountain

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Net Acres
I	Modified clearcut	33
II	Modified clearcut	18
III	Modified clearcut	10
Total		61

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

This operation consists of three modified clearcut units. The units are in the western hemlock vegetation zone. Average annual rainfall is 68 to 78 inches.

The landform is moderate slope with some steep areas on the east flank of the Spindle Creek drainage. The underlying rocks are sedimentary origin rocks of the Tye Formation.

Aspect for Area I is northwest to southwest. Area II is mostly north to northwest and aspect for Area III is northwest.

A portion of the Willamette and Pacific railroad is located to the east of Area I and also runs between Areas II and III.

II. CURRENT STAND CONDITION:

Areas I and II contain a combination of 80 year old red alder and 71-78 year old Douglas-fir. Area III contains 80 year old alder and Douglas-fir that is 78-113 years old. A few bigleaf maple are present in all three areas. Snags and down wood are present in limited numbers.

Brush species consist of red elderberry, salal, vine maple, sword fern, salmonberry, red huckleberry, and hazel.

The current stand type for Areas I-III is Understory (UDS).

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	RD	Acres ²
I	Modified CC	SLI 18483	Red alder	80	13	155	171	43	25
		S99 18149	Douglas-fir	78	15	288	238	75	8
II	Modified CC	SLI 18483	Red alder	80	13	155	171	43	10
		S99 18153	Douglas-fir	71	22	362	142	77	8
III	Modified CC	SLI 18483	Red alder	80	13	155	171	43	3
		S99 18154	Douglas-fir	113	32	367	65	70	7

1 The source of stand inventory information is OSCUR 99 grown forward or from 2004 SLI.

2 The acres are based on orthophotos and GIS and exclude roads, streams buffers, reserve areas, etc.

III. DESIRED STAND CONDITION:

According to the district's landscape design, the operation areas are designated as DFC General and are not scheduled to become more complex stand types but will be designed to become UDS stands.

Areas I and III Vision: When the next final harvest occurs in these operation areas, the stands will be 60-70 years old and will be in the UDS condition. The areas will consist of Douglas-fir with lesser amounts of western hemlock, western redcedar and red alder. A few bigleaf maple will also be present. Where there are gaps in the overstory, there will be an understory of hemlock, cedar, alder and brush (elderberry, vinemapple, salmonberry, huckleberry). Legacy trees (about 4-6 per acre) left from the first regeneration harvest will be located in small clumps and also scattered across the area. These Douglas-fir trees will average about 32 inches DBH in Area I and 45 inches DBH in Area III. Both large and small snags and large and small down wood will be located throughout the unit.

Area II Vision: When the next final harvest occurs in this operation area, the stand will be 60-70 years old and will be in the UDS condition. At that time, this stand will consist of an overstory of well-stocked, well-formed red alder with a few scattered western redcedar. The understory will include a mix of elderberry, vinemapple, salmonberry and huckleberry. Legacy trees (about 4-6 per acre) left from the first regeneration harvest will be located in small clumps and also scattered across the area. These Douglas-fir trees will average about 36 inches DBH. Both large and small snags and large and small down wood will be located throughout the unit.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
I	SLI 18483	UDS	REG	UDS	25
	S99 18149	UDS	REG	UDS	8
II	SLI 18483	UDS	REG	UDS	10
	S99 18153	UDS	REG	UDS	8
III	SLI 18483	UDS	REG	UDS	3
	S99 18154	UDS	REG	UDS	7

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:

Areas I and III Anticipated Pathway: This harvest will be a modified clearcut prescription leaving behind about 10-12 green trees per acre that will be greater than 15 inches DBH in Area I, 20 inches DBH in Areas II and III. The majority of these reserve trees will be Douglas-fir, but some alder and bigleaf maple will also be left. Existing snags that do not pose a safety hazard and all existing down wood will be retained. From the reserve trees, two snags per acre will be created and 600-900 cubic feet of conifer will be felled for down wood.

After harvest, portions of the areas with less than 35% slope will be slash piled and the piles will be burned. A site prep herbicide treatment will also be applied. Prior to planting, mountain beaver will be trapped from the areas.

Following completion of site prep activities, the areas will be replanted with approximately 60% Douglas-fir, 25% western hemlock and 15% western red-cedar at a rate of 360 trees per acre. All cedar will be tubed to deter elk and deer browse. Once planting is complete, the operation area will fit the REG classification.

It is likely that at least one herbicide application will be needed within the first 3 years after planting in order to release planted conifer from competing brush. It is also likely that mountain beaver will be trapped again the first year after planting. Alder is expected to seed-in naturally into the stand. By age 12 years the stand will have moved from REG to CSC.

When the areas reach age 12-15, it is likely that PCT will be used to reduce total trees per acre to around 222. The biggest and best trees will be selected to leave, also keeping in mind the desire to leave roughly the same percent species mix as was planted, and also allowing up to 15% of the mix to be comprised of hardwood.

At approximately age 30 the areas will be commercially thinned to about an RD 35. This thinning will capture harvest volume and will also move the stands on the pathway from CSC to UDS by opening the stands enough to allow vegetation to grow in the understory. Approximately 5-10 years following this thinning, the UDS condition will be achieved.

A second commercial thinning of the areas will be conducted in 10 to 15 years, when the stands RDs have reached about 50. Trees will be thinned to about an RD 35. This thinning will capture harvest volume and maintain stand vigor. It will also keep the stand from reverting to CSC. The amount and condition of down wood and snags will be evaluated and more will be created at this time if needed.

In 10-15 years following the second thinning, tree growth rates will be evaluated and a decision will be made to either conduct a third thinning or to wait and final harvest at 60-70 years old.

Area II Anticipated Pathway: This harvest will be a modified clearcut prescription leaving behind about 10-12 green trees per acre that will be greater than 22 inches DBH. The majority of these reserve trees will be Douglas-fir, but some alder and bigleaf maple will also be left. Existing snags that do not pose a safety hazard and all existing down wood will be retained. From the reserve trees, two snags per acre will be created and 600-900 cubic feet of conifer will be felled for down wood.

After harvest, portions of the area with less than 35% slope will be slash piled and the piles will be burned. A site prep herbicide treatment will also be applied. Prior to planting, mountain beaver will be trapped from the area.

Following completion of site prep activities, the area will be replanted with alder at a rate of 538 TPA. Cedar, at a rate of 10-20 TPA will be mixed in with the alder. All cedar will be tubed to deter elk and deer browse. Once planting is complete, the operation area will fit the REG classification.

It is likely that mountain beaver will be trapped again the first year after planting. Additional alder are expected to seed-in naturally. By age 10 years the stand will have moved from REG to CSC.

When the alder reach age 9-12 years, they will most likely require a pre-commercial thinning (PCT) back to about 250 TPA. Trees will be left on an even spacing.

It is possible that the alder will require additional thinning back to 150 – 180 TPA. This would likely be a PCT operation (trees too small for commercial harvest) and would be conducted at around age 20-30 years. This thinning will allow the

alder to continue to grow vigorously until harvest and will also move the stand along the pathway to UDS. Approximately 5-10 years following this thinning, the UDS condition will be achieved.

Final harvest of the alder will occur at 60-70 years of age.

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: Alt.			

	Conifer	Hardwood	Total
Net Volume (MBF)	800	500	1,300
Stumpage Value (\$/MBF)	\$350	\$300	
Estimated Gross Value	\$280,000	\$150,000	\$430,000
		Project Costs:	\$21,000
		Estimated Net Value:	\$409,000

VI. TRANSPORTATION PLANNING AND HARVESTING:

Access to the operation is from three existing private roads. Access to Area I is over a rocked road in fair condition. Access into Areas II & III is over partially rocked roads also in fair condition. These spurs will need to be extended through private and onto State Lands. The planned spurs will be unsurfaced and not suitable for wet winter haul. All three of these roads will require a road use agreement, two roads from one landowner and one road from two landowners. A railroad borders this sale on the West, North and East sides which limits alternative access.

Existing roads provide timber harvest access to 0% of the operation acreage. In Area I, three road location options were investigated. The preferred option avoided costly long full bench sections. The planned spurs into Areas II & III were easily laid out onto a ridge in each unit.

Harvesting timber in the operation areas would require a combination of 60% cable yarding and 40% ground skidding.

About 0.3 miles of road improvement will be necessary.

All unsurfaced roads will be waterbarred, blocked to vehicular traffic, and grass seeded after harvesting operations are concluded and/or at the beginning of the wet season.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0	0.8
Improve	0	0	0	0.3
Maintain	0	0	1.4	0.6
Close/Block	0	0	0	1.7
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:

Water flowing from the operation areas is part of the Yaquina River System.

A type F stream exists to the west of Area I. The timber sale boundary will be posted about 100' horizontal distance from this stream. Sufficient trees will be retained in the outer Riparian Management Area (RMA) zone to comply with current standards.

Type N streams are present in Areas I and II. Buffers averaging 50-75 feet horizontal distance will be posted on either side of these streams. No trees will be felled within the buffer except to facilitate cable yarding. In the remaining portion of the RMA zones sufficient trees will be retained to comply with current standards.

Vegetation along type F and N streams consists of conifer and hardwood trees and brush species such as salmonberry, elderberry, vine maple, and sword fern.

There are no registered domestic water intakes in the vicinity of the operation area.

Activities that will take place in proximity to the streams, listed above, include timber felling and yarding. The following measures will be employed to minimize impacts to the stream: 1) no timber will be felled within the buffer except to facilitate cable yarding, 2) timber above the buffer will be felled away from or parallel to the stream, 3) timber will be yarded away from the stream, where possible, 4) if it is necessary to yard logs across the stream, logs will be fully

suspended above the buffer vegetation, and 5) single end suspension of logs will be required elsewhere in the units.

Other requirements designed to minimize impacts to streams include seasonal restrictions for road construction and log hauling.

ODFW will be consulted for placing structure in the stream between Areas I and II.

The Land Management Classification System for Aquatic and Riparian category determined 14 acres in Focused Stewardship. Focused Stewardship acres are distributed along type N stream RMA's and the outer zone of type F streams.

VIII. T&E SPECIES CONSIDERATIONS:

The operation areas contain suitable habitat for northern spotted owls and marbled murrelets. Surveys for both species were conducted in 2005 with no detections. Surveys will continue in 2006.

T&E fish: Tributaries of the Yaquina River that flow from the operation areas support "threatened" Coho salmon. For a discussion of protection measures see Section VI "Harvesting and Access Considerations" and Section VII "Aquatic Resources and Water Quality".

The operation areas were checked against district knowledge for any listed plant locations. The operation areas were also checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations. No listed plant records were identified within the operation areas.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

There are a few steep slopes in both Areas I and II. The initial assessment from the geotechnical specialist is low for Area III and moderate for Areas I and II. During field work the geotechnical specialist will be consulted to determine if a field visit will be needed for Areas I or II.

X. RECREATION RESOURCES:

Since access to this parcel is through a private road, recreation opportunities are very limited.

XI. CULTURAL RESOURCES:

There are no known cultural resources within or adjacent to the operation areas.

XII. SCENIC RESOURCES:

None of the operation areas can be seen from paved roads.

XIII. OTHER RESOURCE CONSIDERATIONS:

A portion of the Willamette and Pacific railroad is located to the east of Area I and also runs between Areas II and III. The timber sale boundary for all three operation areas will be posted at least 150 feet from the rail road tracks.

The Land Management Classification System for Easements category determined 6 acres in Focused Stewardship which is the width of the railroad easement on either side of the tracks.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The operation area contains 14 acres Focused Stewardship, Aquatic and Riparian Habitat along the Type N stream riparian areas. The area contains an additional seven acres in Special Stewardship, Aquatic and Riparian Habitat along Spilde Creek which lies on the northwest boundary of the sale area and along a non-fish stream that flows between Area I and Areas II and III. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.

The operation area contains six acres of Focused Stewardship, Easements, along the Willamette and Pacific Railroad. See Section XIII, Other Resource Considerations, for the management guidelines to be utilized.