

Pre-Operations Report

Operation Name: Scattered Sam
County: Lincoln
Management Basin: Scattered Coastal

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Net Acres
I	Partial Cut	37
II	Partial Cut	134
III	Partial Cut	32
IV	Partial Cut	32
Total		235

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The operation consists of four partial cut units. The units lie in the western hemlock vegetation zone. Average rainfall for Areas I and II is 78 to 100 inches per year. Areas III and IV receive 68 to 78 inches per year.

The landforms are gentle and moderate slopes in the headwaters of Sam Creek (Area II) and its tributaries Long Prairie and Alexandria Creek (Area I) and East Fork of Bales Creek (Areas III and IV). The underlying rocks are sedimentary origin rocks of Tye Formation.

The aspect for Area I is mostly east with a few acres of south. Aspect for Area II is primarily north and east with some westerly. Area III faces west and Area IV faces northwest.

II. CURRENT STAND CONDITION:

Areas I-IV support Douglas-fir plantations that are from 27-33 years old. Areas I, III, and IV were pre-commercially thinned about 10 years ago. Area II has not been pre-commercially thinned. In all operation areas there are some red alder and bigleaf maple present in the stands. There are few snags and little down wood in the operation areas.

Brush species consisting of salmonberry, elderberry, sword fern, salal, hazel, and vine maple are present in the understory in small quantities.

All four operation areas are classified as Closed Single Canopy (CSC).

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	RD	Acres ²
I	PC	S99 18495	Douglas-fir	27	11	170	257	51	37
		Target ³			14	120	112	32	
II	PC	SLI 18862	Douglas-fir	28	10	170	311	53	134
		Target ³			13	120	130	33	
III	PC	SLI 18471	Douglas-fir	31	11	165	250	50	32
		Target ³			14	120	112	32	
IV	PC	SLI 18063	Douglas-fir	33	11	160	242	48	32
		Target ³			14	120	112	32	

1 The source of stand inventory information is from district inventory plots measured in 2004.

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

3 The Target identifies expected stand characteristics (DBH, BA, TPA and RD) after harvesting has been completed.

III. DESIRED STAND CONDITION:

According to the district's landscape design, Area I is designated as Desired Future Condition (DFC) Layered (LYR). Areas II-IV are designated as DFC General and are targeted to be Understory (UDS) stands.

Area I Vision: The LYR condition will be attained by the time the stand is approximately age 60. At that time, the stand will consist of an overstory of Douglas-fir with a few scattered alder and bigleaf maple. Overstory trees will be both scattered and grouped in small clumps. A second layer consisting of patches of western hemlock, western redcedar, Sitka spruce and red alder will be present. An understory of natural Douglas-fir, alder, bigleaf maple and brush species (vinemaple, elderberry and salal) will be present in gaps and low density areas. Hemlock, spruce and cedar will be starting to seed-in naturally. Snags and downed wood will be present throughout the stand.

Areas II-IV Vision: These stands will move from CSC to UDS within 5-10 years following initial thinning and will remain in that condition until final regeneration harvest at age 60-70 years. At the time of final harvest, these areas will consist of well-stocked, large Douglas-fir in the overstory and brush (sword fern, hazel) and forbs in the understory. A few alder and bigleaf maple will be scattered throughout the stands, both in the overstory and understory. Snags and downed wood will be present throughout the stands.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
I	18495	CSC	UDS	LYR	37
II	18862	CSC	UDS	UDS	134
III	18471	CSC	UDS	UDS	32
IV	18063	CSC	UDS	UDS	32

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 I Anticipated Pathway: During this commercial entry, this area will be thinned to an RD of 32, leaving about 112 TPA. The average DBH of residual trees will be 14 inches.

- Most snags and downed wood will be left.
- All trees other than Douglas-fir will be reserved from cutting.
- Approximately 15% of the acreage will be patchcut. Patches will range from 1/2 to 2 acres in size. In patchcuts that are greater than one acre in size, a few trees will be marked for retention.
- Patchcut areas will be treated with site preparation herbicides in order to deter brush competition.
- The patches will be planted with western hemlock and western redcedar in approximately equal amounts and at a rate of approximately 360 tpa. A few Douglas-fir will be planted in the larger patchcuts.
- Animal damage mitigation will consist of tubing all cedar to protect against deer and elk browse. Mountain beaver control work is expected.

It is likely that at least one herbicide application will be needed within the first 3 years after planting in order to release planted seedlings from competing vegetation.

Five to ten years after thinning, forbs and brush will be established in the understory, moving the stand into a UDS condition. Small openings in the overstory, resulting from wind-throw and logging practices will have encouraged natural Douglas-fir and hardwood to seed-in in spots in the understory as well. Trees planted in the patchcuts will be free-to-grow and will be on their way to forming a second layer.

In 10 to 15 years after the initial thinning, the RD is expected to be 50-55 and the stand will be thinned again to an RD of about 30. The stand will be opened up enough to maintain stand vigor and to allow the natural regeneration to persist in the understory. Without this thinning, this stand would likely revert to CSC.

- At this time, the amount of natural snags and downed wood will be evaluated. If it is determined that additional amounts are needed, then snags and downed wood will be created.
- Small patchcuts will be created on about 15% of the unit acreage. Patches will be replanted to cedar, spruce and hemlock.

Following this thinning, trees planted in the original patchcuts will be pre-commercially thinned (PCT) if needed

In another 10 to 15 years, the stand will have reached the LYR condition. The stand RD will have again reached about 50 and a third commercial thinning will likely occur. This thinning will take the overstory trees down to approximately 25 TPA. It is possible that patchcut trees (those planted after the first harvest) could be commercially thinned at this time as well.

- The need for additional snags and downed wood will be evaluated and more will be created if needed.

From this point on, the remaining overstory trees will be left as legacy trees. Over time, some will become snags and downed wood. The understory trees will gradually become the overstory component. Continued seed-in of conifer and hardwood will keep the stands in the LYR condition. Density regulation (PCT of understory and commercial thinning of the overstory) will likely occur.

Areas II-IV Anticipated Pathway: These three areas will be thinned to an RD of 32-33 and 120 ft² basal area. This will leave 112-130 TPA with an average diameter of 13-14 inches.

Five to ten years following harvest, brush and forbs will have become re-established in the understory, moving the areas into the UDS condition.

A second thinning will be conducted in 10 to 15 years, when stand RDs have reached about 50. The aim of this thinning is to capture volume, maintain stand vigor and prevent the stands from reverting to the CSC condition.

In another 10-15 years, tree growth rates will be evaluated and a decision will be made to either conduct a third thinning or to wait a few years and conduct a regeneration harvest.

If a third thinning is chosen, then final harvest will likely occur when the stands are 75-85 years old.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
14%	86%	<input type="checkbox"/>	X
Planned Quarter:	Alt.		

	Conifer	Hardwood	Total
Net Volume (MBF)	1,200	0	1,200
Stumpage Value (\$/MBF)	\$200		
Estimated Gross Value	\$240,000		\$240,000
		Project Costs:	\$114,000
		Estimated Net Value:	\$126,000

VI. **TRANSPORTATION PLANNING AND HARVESTING:**

Access to Area I is up Long Prairie road and then along a spur off Long Prairie road. This spur will need to be extended over an industrial forest landowner and through a Bureau of Land Management parcel. It will consist of both mid-slope and ridgetop construction on gentle side slopes and surfaced with crushed rock. The existing roads are rocked and in good condition but will need some spot rock and maintenance grading during hauling.

An access permit has been secured for Long Prairie road, but two road use agreements will be needed for the other segment. An alternative to the access over the BLM parcel is from Hayes Creek Road which runs along the East side of the unit. This option was not chosen because a stream crossing structure would be required, and existing access to the area is steep.

Access to Areas II through IV is over Norton County road. The bottom portion is rocked and in fair condition. The upper portion is unsurfaced and currently blocked to vehicular traffic. All spurs in Area II are existing and unsurfaced which will be reopened. Access to Areas III & IV are over existing spurs which will be reopened and surfaced. An alternative access route for Area II coming in from the Southwest off of Long Prairie Creek road was considered but dismissed due to excessive reconstruction cost of a massive slide feature and the associated environmental risks.

Fish distribution surveys are needed for tributaries of Long Prairie Creek for evaluation of stream crossing structure replacements along Long Prairie Creek road.

Existing roads provide timber harvest access to 80% of the operation acreage. Because existing roads already access the sale area, no other harvest alternatives were considered.

About 4.3 miles of road improvement will be necessary.

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

Harvesting timber in the operation areas will require a combination of 50% cable yarding and 50% ground skidding.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0.4	0
Improve	0	0	1.3	3.0
Maintain	0	5.3	1.5	0
Close/Block	0	0	0	3.0
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:

Streams that flow from Areas I and II are part of the Siletz River system. Streams flowing from Areas III and IV join the Yaquina River system.

Type F streams are adjacent to the east side of Area I and the west side of Area III. The timber sale boundary will be posted at least 25 feet horizontal distance from these streams. No trees will be felled within the buffer except to facilitate cable yarding corridors. The partial cut thinning prescription will retain sufficient trees in the inner and outer Riparian Management Area (RMA) zones to comply with current standards.

There is a short segment of type F stream that flows north out of Area II. A 25 foot horizontal distance buffer will be posted on either side of this stream. No trees will be felled within the buffer except to facilitate cable yarding corridors. The partial cut thinning prescription will retain sufficient trees in the inner and outer Riparian Management Area (RMA) zones to comply with current standards.

Type N streams are present in all four units. A 25' horizontal distance buffer will be established on either side of these streams. No harvesting will be allowed within the buffer except to facilitate cable yarding. The partial cut thinning prescription will retain sufficient trees in the RMA to comply with current standards.

Vegetation along Type F and N streams consists of Douglas-fir and red alder trees and brush species such as salmonberry, elderberry, sword fern, and vine maple.

There are no sources of domestic water intakes in close proximity to the operation areas.

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

ODFW will be consulted for placing structure in the Type F streams associated with this sale.

The Land Management Classification System for Aquatic and Riparian category determined 44 acres in Focused Stewardship and eight acres of Special Stewardship. Focused Stewardship acres are distributed along type N stream RMA's and the outer zone of type F streams. Special Stewardship occurs in the inner zone of type F streams.

VIII. T&E SPECIES CONSIDERATIONS:

According to the area wildlife biologist suitable habitat for marbled murrelets and northern spotted owls does not exist in the operation areas and consequently no surveys are necessary.

The operation area contains 68 acres of Focused Stewardship, Wildlife in Areas I and III.

T & E Wildlife: Areas I and III are adjacent to Marbled Murrelet Management Areas and seasonal operating restrictions may be required.

T&E fish: Tributaries of the Yaquina River and Siletz 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 scattered steep slopes in each of the four areas. Some High Landslide Hazard Locations appear on the topography as mapped in the operation. The initial assessment from the geotechnical specialist is moderate. If High Landslide Hazard Locations are located during field work the geotechnical specialist will be consulted and the need for a field visit will be evaluated.

X. RECREATION RESOURCES:

The primary use of these lands is for hunting.

XI. CULTURAL RESOURCES:

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

XII. SCENIC RESOURCES:

None of the operation areas are visible from paved roads.

XIII. OTHER RESOURCE CONSIDERATIONS:

No other resource considerations have been identified.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The operation area contains 44 acres Focused Stewardship, Aquatic and Riparian Habitat along the Type N stream riparian areas in Areas I, II, III and IV. The area contains an additional eight acres in Special Stewardship, Aquatic and Riparian Habitat in Areas I, II and III. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.

The operation area contains 68 acres of Focused Stewardship, Wildlife in Areas I and III. See Section VIII, T & E Species Considerations, for the management guidelines to be utilized.

