

Pre-Operations Report

Operation Name: Sprague's Stump
County: Clatsop
Management Basin: Northrup

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	PC-M	94	90
2	MC	111	106
3	MC	54	48
4	MC	57	54
Total	Modified Clearcut	222	208
Total	Partial Cut	94	90

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

These sale areas are located in the Northrup Basin. They are in the western hemlock vegetation zone, and are characterized by Douglas-fir stands, with some western hemlock, western redcedar, and red alder. The soil series are Keasey on steeper slopes, with Tillamook or Bradwood on most slopes. Site Index is highest (average 125) on the Tillamook Soil Series and lowest on Keasey (average 110) with Bradwood intermediate (120). The landform consists of Cow Ridge and a portion of its side slopes. Areas 1-3 drain into Cow Creek and then into Northrup Creek.

The sale is underlain by sedimentary rocks of the informal Sager Creek formation, informal Northrup Creek formation, and the Pittsburg Bluff Formation, all mudstones and sandstones. Slopes in the operation area range from gentle mountain slopes (5-20%) to precipitous mountain slopes (over 65%), with primarily eastern aspects. Elevations range from 750 to 1,450 feet.

II. CURRENT STAND CONDITION:

Area 1 - The current stand is approximately 60 years old, and are composed primarily of small to moderate sized Douglas-fir (~19" DBH). The stands are categorized as an Understory Development structure (UDS) with a stand density index of 60. Area 1 has approximately 12 snags per acre over 12 inches in DBH, and 2 snags per acre over 24 inches in DBH. The stand has approximately 2,400 cubic feet per acre of down wood in all decay classes, and approximately 120 cubic feet per acre of down wood in decay classes 1 and 2.

Area 2 - The current stand is primarily composed of 47 year old, small to large sized, Douglas-fir with conifer and hardwood species mixed throughout the stand. The stand is categorized as UDS with a stand density index of 40. Area 2 has approximately 7 snags per acre over 12 inches in DBH, and 2 snags per acre over 24 inches in DBH. The stand has approximately 2,900 cubic feet per acre of down wood in all decay classes, and approximately 150 cubic feet per acre of down wood in decay classes 1 and 2.

Area 3 - The current stand is primarily composed of 61 year old, small to large sized, Douglas-fir with conifer and hardwood species mixed throughout the stand. The stand is categorized as UDS with a stand density index ranging from 40-70. Area 3 has approximately 5 snags per acre over 12 inches in DBH, and 1 snag per acre over 24 inches in DBH. The stand has approximately 4,100 cubic feet per acre of down wood in all decay classes, and approximately 74 cubic feet per acre of down wood in decay classes 1 and 2.

Area 4 - The current stand is approximately 60 years old, and are composed primarily of small to moderate sized Douglas-fir (~19" DBH). The stands are categorized as an Understory Development structure (UDS) with a stand density index of 60. Area 4 has approximately 12 snags per acre over 12 inches in DBH, and 2 snags per acre over 24 inches in DBH. The stand has approximately 2,400 cubic feet per acre of down wood in all decay classes, and approximately 120 cubic feet per acre of down wood in decay classes 1 and 2.

Understory development for all sale areas consists primarily of sword fern, vine maple, huckleberry, and salmonberry.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age ²	DBH	BA	TPA	SDI	Acres ³
1	PC - M	23688	DF	60	20	234	112	55	20
	PC - M	23663	DF	59	19	270	145	65	70
		Target ⁴				140-160		25-35	86
2	MC	23698	DF	47	17	162	103	40	106
		Target ⁴	DF, WH						106
3	MC	23715	DF	61	18	291	167	71	46
		Target ⁴	DF, WH						46
4	MC	23688	DF	60	20	234	112	55	2
		23663	DF	59	19	270	145	65	52
		Target ⁴	DF, WH						54

1 The source of stand inventory information is SLI.

2 Age shown is as of 2008.

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

4The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED FUTURE CONDITION/VISION:

Area 1 does not have a designated complex desired future condition. The desired condition of this stand is a healthy vigorous stand of mixed conifer and hardwoods. This area will be thinned to promote some layering and capture the natural mortality within the stand while leaving future options open to either regeneration harvest this stand or thin again and have this stand serve as a complex replacement stand in the future.

Areas 2, 3, and 4 do not have a designated complex desired future condition. The desired conditions of these stands are healthy vigorous stands of mixed conifer and hardwoods. By harvesting in these stands and planting a mix of conifer species, 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	23688	UDS	UDS	GEN	20
	23663	UDS	UDS	GEN	70
2	23698	UDS	REGEN	GEN	106
3	23735	UDS	REGEN	GEN	46
4	23688	UDS	REGEN	GEN	2
	23663	UDS	REGEN	GEN	52

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 - The sale area is designed to commercially thin from below to a stand density index (SDI) of 25 to 35. An effort will be made to retain minor tree species. Trees less than 8 inches DBH will be reserved.

Areas 2, 3, and 4 - These areas are planned for a modified clearcut that will be replanted with a mixture of conifer species. Minor species found will be reserved from cutting.

Snags: During all harvesting activities, all existing snags will be retained unless deemed to be safety hazards. In MC areas stand inventory information indicates that we currently have more than two snags/acre. If sale cruise information indicates less than two snags/acre actually exist in the units, then supplemental snag creation will be planned with the operation. 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. This will add to the existing amount of snags/acre and which is anticipated to exceed the landscape level goal.

Green Trees: In MC Areas 2, 3, and 4, an average of five to seven 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 them in the uplands and placing some within stream buffers and outer RMA areas. In addition, individual and small clumps of non-merchantable trees will be left in operationally feasible areas. In all sale areas minor species such as red cedar will be reserved from cutting, and any existing larger remnant trees will be reserved from cutting

Downed Wood: For all harvesting activities, all existing down woody debris will be retained. In MC Areas 2, 3, and 4, 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 existing downed wood levels in decay class 1 and 2. To increase down wood levels in the partial cut area, operations will be required to top trees prior to yarding and to yard only merchantable log segments to roadsides, in addition to bucking out defect prior to yarding.

Some site preparation will be provided during cable and ground based harvesting. The current reforestation plan calls for planting at 300 trees per acre with the following species mixture: 50% Douglas-fir, 45% western hemlock, 5% western red cedar. Animal browse is a challenge in this geographic location. Tree protection measure will include: paper bud caps on the Douglas-fir, and tubes on the Western Red Cedar. Mountain beaver trapping will occur prior to initial planting.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	X
Planned Quarter		4th	

	Conifer	Hardwood	Total
Net Volume (MBF)	8,500	900	9,400
Stumpage Value (\$/MBF)	\$160	\$220	
Estimated Gross Value	\$1,360,000	\$198,000	\$1,558,000
		Project Cost:	\$130,240
		Estimated Net Value:	\$1,427,760

VI. HARVESTING AND ACCESS CONSIDERATIONS:

Access to the sale area will be Highway 202 to Northrup Creek Road to Cow Ridge Road

There are currently good quality forest roads accessing all of the sale areas. The proposed new roads are composed of collector spurs and relatively short dirt and/or rocked spurs from existing rocked roads. Road improvement will be needed on the existing spur road in Area 1. New road construction in Areas 1, 2, and 4 will be surfaced spurs. Currently, the waterbarred and blocked dirt spur accessing Area 3 is being used as part of the horse trail. At the conclusion of harvesting activities this dirt spur will be restored to useable trail condition. Approximately 1,500 feet of new road construction into Areas 1 and 2 will be constructed on the existing horse trail off Cow Ridge Road. Brushing needs will be assessed at the time of sale layout.

The sale will have cable-yarding settings as well as ground yarding areas. These areas were determined from analysis of the terrain and landing locations. Existing roads will be utilized as much as possible for logging the sale areas.

The pit-run rock needed will be developed at Northrup Quarry.

Table 5. Transportation Management Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0.0	0.0	2.2	0.5
Improvement	0.0	0.0	0.3	0.8
Maintenance	0.0	4.3	2.9	0.0
Close/Block	0.0	0.0	0.0	1.3
Vacating	0.0	0.0	0.0	0.0

VII. AQUATIC RESOURCES AND WATER QUALITY:

Type F and Domestic Use Streams: Cow Creek, a Type F stream, is located adjacent to the western boundaries of Areas 3 and 4. In Area 1 an assumed fish presence tributary of Cow Creek runs the western boundary for 1,300 feet. The western boundary of Area 2 is adjacent to Cow Creek for a distance of 1,800 feet. The western boundary of Areas 3 is adjacent to Cow Creek for approximately 600 feet. An unknown fish tributary of Cow Creek runs adjacent to the northwest boundary of Area 3 for approximately 900 feet. In Area 4 an unknown fish presence tributary of Cow Creek runs the western boundary for 300 feet

There are no known domestic water systems associated with this sale. The western boundary of both sales is adjacent to Cow Creek which contains Coho, a federally listed fish species.

Aquatic Resource Protection: For all areas, full log suspension is required when cable yarding over streams. No ground-based logging equipment operation is allowed within the stream bank zone. No stream crossings are anticipated during road construction. In order to protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods include (but are not limited to) maintaining culverts and other road drainage structures, using sediment control devices in road ditches when necessary, and seasonal restrictions on logging and hauling operations. Culvert installment and replacement in live streams will be conducted between July 1 and Aug. 31. Operations outside of this period will be reviewed with ODFW. If any additional in-stream work is done with this sale, it will all be conducted during in-stream work periods established by ODFW. Riparian management areas result in leave trees adjacent to the stream which protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat.

Small Type N Streams just above the Type F/ N Boundary:

Small type N streams can influence stream temperature of downstream fish-bearing streams. Sufficient trees will be retained within 500' of the confluence with type F streams to achieve 80% shade over streams.

Type N Streams: There are small perennial Type N streams within all sale areas. A 25' no-harvest buffer will be established along the small type N streams. Additional trees including some wildlife trees may be retained adjacent to the streams in Areas 2, 3, and 4, which may result in a wider buffer.

Seasonal Small Type N Streams: Equipment will be excluded from the stream bank zone (within 25' of the channel) to maintain the integrity of the stream channel. Some wildlife trees will be retained within and/or adjacent to the seasonal stream channels in Areas 2, 3, and 4, which may result in a wider buffer.

In addition, 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 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.

There may be an opportunity to perform stream enhancement work in Cow Creek. Further assessment and collaboration will be done with ODFW biologists and the Jewell Unit Forester.

VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

This sale was surveyed for Northern Spotted Owls in 2007 and 2008 with no responses.

The ODF Northwest Area Biologist determined that none of the sale areas contained suitable habitat for Marbled Murrelets.

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:

This assessment is based off of USGS 1:24,000 topographic maps and available geologic maps. There may be a few isolated high landslide hazard locations in the sale area. Areas 1, 2, and 4 drain into Cow Creek. Area 3 drains into Cow Creek and an unnamed tributary to Northrup Creek. The risk of landslides delivering directly to Cow Creek or the unnamed tributary to Northrup Creek from the sale area is low. Areas 1 and 2 appear to be located on a large, deep-seated landslide landform. The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

X. RECREATION RESOURCES:

This area is seeing increasing recreation use as the Northrup Creek Horse Camp trails exist in the sale area. The Northrup Creek loop trail that was reviewed with the Jewell Unit Forester in December 2003 passes through Sale Area 3. Bridge structures exist in south of Area 4 on the old grade. The road into Area 3 should remain dirt if possible to allow future equestrian use. Coordination between the unit forester and the district recreation coordinator will be important when laying out the timber sale to protect the structures and minimize user conflicts. It is anticipated that portions of the horse trail will be closed during harvest and road construction activities.

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:

Area 1 - No survey work required. Protect ¼ corner to Sections 4 and 9. Rewitnessed, Metcalf, 1993.

Areas 2 and 3 - No survey work required. No corners to protect.

Corners Requiring Rewitnessing In Area: Section corner to Sections 4, 5, 8 & 9, T6N, R6W

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

All acres in Areas 1-4 are classified as “general management.”





