

Pre-Operations Report

Operation Name: Jackpipe
County: Clatsop
Management Basin: Astoria

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	MC	9	9
2	PC	116	105
3	PC	18	16
4	MC	50	45
5	MC	40	36
Total	Modified Clearcut	99	90
Total	Partial Cut	134	121
Total		233	211

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The sale areas are located in the Astoria Basin, just east of the City of Astoria, south of U.S. Highway 30, about 8-10 miles inland from the Pacific Ocean, and about 2 miles from the Columbia River. It is in the "hemlock zone" and is characterized by hemlock and Douglas-fir as the dominant tree species, with understory of salal and ferns.

Soils type in these sale areas is predominantly Astoria, a generally deep, well-drained, finely textured residual soil developing from sandstones, with site index averaging 140 feet. Elevations range from 50 to 250 feet.

The sale areas are located on gentle to moderate slopes on low rolling hills near Youngs Bay. The area is underlain by sedimentary rocks, thin bedded mudstones, and medium to coarse grained sandstones of the Astoria Formation.

II. CURRENT STAND CONDITION:

Most of areas originated from harvesting in the 1940's, 1950's, and 1960's.

Areas 1 and 5 – The current stands are generally 62 to 70 years old, and are tall, very dense western hemlock stands, with poor crown development. Neither sale area has been commercially thinned. The understory vegetation is very minimal, and is composed primarily composed of sword ferns and huckleberry. Stand

Level Inventory (SLI) indicates that there is deficiency in snags, and that there is approximately 266 cubic feet of downed wood (Decay Class 1 and 2) in Area 5. Field reconnaissance also indicates that Area 1 has a current condition of “Closed Single Canopy”. Area 1 will be further evaluated (as defined by draft memo 3/23/2004 “*Planned Sale Inventory Requirements – Alternative to Full Stand Level Inventory*”).

Areas 2 and 3 - The current stands are generally 52 to 59 years old, and are composed of dense western hemlock dominated, mixed conifer stands, with moderate crown development. Neither sale area has been commercially thinned. The understory vegetation is minimal, and is composed primarily composed of sword ferns, huckleberry, and some vinemapple.

Area 4 - This isolated parcel is composed of hemlock dominated mixed conifer stands, approximately 55 to 67 years old. Again, SLI indicates that there is deficiency in snags, and that there is approximately 946 cubic feet of downed wood (Decay Class 1 and 2) in the sale area. The western portion of the area was originally classified as conifer but was reclassified to brush during planting data workup. The conifer stocking is less than 1/8 of yield stocking. This portion of the sale area will need to be rehabilitated to allow the development of new stand.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
1	MC	25503*	WH	62	17	321	201	79	9
		Target ³	WH, WRC				5		9
2	PC-M	23132	WH, DF	59	14	204	181	54	105
		Target ³	WH, DF		16	140	85	30	105
3	PC-M	23055	WH, DF	52	16	203	153	52	16
		Target ³	WH, DF		18	140	85	30	16
4	MC	23232	WH, DF	67	18	184	108	45	20
4	MC	23237	WH, DF	55	17	154	100	38	15
4	MC	25541*	Brush	65	N/A	N/A	N/A	N/A	10
		Target ³	WH, WRC				5		45
5	MC	23220	WH	70	14	276	252	73	36
		Target ³	WH, WRC				5		36

1 The source of stand inventory information is (*OSCUR Stand 2002 and SLI from 2002 and 2003).

2 The acres are based on (orthophotos, traverse, GIS, GPS, etc) 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:

The desired future stand condition for Areas 2 and 3 is Layered (LYR). Areas 1, 4, and 5 are not planned to have a complex desired future condition on the landscape.

Table 3.

Area	Stand ID	Current	Post Harvest ²	Desired Future	Acres
1	25503	CSC	REG	General	9
2	23132	CSC	UDS	LYR	105
3	23055	UDS	UDS	LYR	16
4	23232	CSC	REG	General	20
4	23237	UDS	REG	General	15
4	25541*	REG	REG	General	10
5	23220	CSC	REG	General	36

² The stand is expected to develop into this condition in the five to ten years after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION / VISION:

Areas 1, 4, and 5 – are planned for modified clearcut and will be replanted with a mixture of conifer species, primarily with western hemlock and some western red cedar.

Areas 2 and 3 - are “first entry” partial cuts into structurally simple stands with stand densities of 51 to 53 of maximum. These stands will be thinned to a SDI of 25%-30%. Reconnaissance plots indicate that an auto-mark thinning to approximately 120 square feet of basal area would open up the portions of the stand that are in CSC condition, and maintain/improve the portions in a UDS condition. There are small patches of non-merchantable trees scattered throughout the sale area. No harvesting activities would take place in these undersized patches. It is anticipated that this harvesting prescription will allow these stands to develop in diameter size and increase structural diversity to allow a subsequent entry in the future to obtain the Desired Future Condition of Layered.

Snags: In all areas, all existing snags will be retained unless deemed to be safety hazards. In MC Areas 1, 4, and 5, approximately two snags per acre will be created. In PC areas, 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 1, 4, and 5, an average of 5 green trees per acre will be scattered and/or clumped throughout the areas, and not solely located in riparian 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 1 and 4, additional conifer trees and/or conifer logs will be retained to meet the landscape targets 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 partial cut areas, to increase down wood levels, operations will be required to top trees prior to yarding and to yard only merchantable log segments to roadsides. Due to the small size of the trees within the PC areas, additional large downed wood recruitment will be deferred until the stands have increased in size.

Site Preparation treatments for Areas 1, 4, and 5 will be further evaluated with the reforestation forester during sale layout. Site preparation for Areas 1, 4, and 5 will be accomplished through cable yarding operations, ground based harvesting, and mechanical manipulation of slash concentrations. These sale areas will be replanted at 200 – 250 trees per acre with the following species: 90% Western Hemlock, 10% Western Red Cedar. Animal damage through big game browse is anticipated to be high. Tree protection will be prescribed to the Western Red Cedar through tube installation at initial planting. Ground applied herbicides will be prescribed to pockets of competing vegetation that hinder stand establishment.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%	<input type="checkbox"/>	4
Planned Quarter:		3 rd	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,585	0	4,585
Stumpage Value (\$/MBF)	\$250		
Estimated Gross Value	\$793,750		\$793,750
		Project Costs:	\$111,000
		Estimated Net Value:	\$682,750

VI. HARVESTING AND ACCESS CONSIDERATIONS:

There are currently good quality forest roads accessing the general vicinity of the sale areas. Area 1 is completely accessed by surfaced roads. Areas 2 and 3 require the construction of several “jump-up” landings and/or short working spurs to cable landings off of the existing Scandinavian Cannery Road. The northern corner of Area 3 presents several options for access: A temporary dirt road could

be constructed through the young stand along the eastern boundary to access a single cable landing; or a ground-based machine such as a “shovel” could be walked through the reprod or use a temporary crossing on Mill Creek in order to two-stage log the bottom end with cable yarding; or more likely, utilize multiple intermediate supports from the landing located on the southern portion of the sale area. These options will be further explored and evaluated during the field layout process.

Short ridge top roads are needed to access Areas 4 and 5. The new rocked roads into Areas 2 and 3 will be needed for future harvesting entries, and will remain open upon completion of harvesting activities. The new road into Area 4 will be rocked and maintained to ensure access for continued young stand management. The new road into Area 5 is currently planned to be unsurfaced and will be considered for removal upon completion of harvesting operations. There are no stream crossings associated with the new road construction. Existing rocked roads into the sale areas require some road improvement, including roadside brushing and application of additional surface rock.

The road rock needed for road construction and improvement will be obtained from existing stockpiles at either the Hunt Creek or Simmons Ridge Stockpile Sites.

Roads in the sale area require approximately 10 miles of roadside brushing.

The project work for this sale is estimated to cost approximately \$116,000.

Approximately 70% of the sale area will be cable logged, as the slopes are moderate to steep. Ground based harvesting systems will be utilized on the more gentle slopes. Cable yarding can be done with medium size yarders. Tractor logging can be done with shovel loggers, track or wheel skidders.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0.0	0.0	1.25	0.25
Improve	0.0	0.5	0.5	0.0
Maintain	5.0	2.0	2.0	0.0
Close/Block	0.0	0.0	0.0	0.0
Vacate	0.0	0.0	0.0	0.25

VII. AQUATIC RESOURCES AND WATER QUALITY:

Type F Streams: Mill Creek (medium, Type F stream) flows along the northwest boundary of Area 3.

An unnamed tributary (small, Type F stream) of Jack Creek flows along the southeastern boundary of Area 2 and another unnamed tributary (small, Type F stream) of Jack Creek is located within the eastern portion of Area 2.

There are no Type F streams within or adjacent to Areas 1, 4, and 5.

All of the streams flow in a northerly direction towards the Columbia River through the Astoria Basin.

Type N Streams: There are small perennial Type N streams in all sale areas. NW Oregon Forest Plan stream riparian strategies will be employed along these streams. The current riparian vegetation is composed of a patchwork of conifer and hardwood overstories. The understory in the conifer dominated reaches is similar to the headlands, with mostly ferns, salal, and some wild rose. The understory within the alder reaches is mostly salmonberry.

All streams will be examined during sale layout to determine stream type and classification. Then, the specific RMA strategies required in the FMP will be implemented. These strategies are found in Appendix J, pages J-1 through J-16.

None of the sale areas are within proximity of streams in which listed fish are present.

Stream Enhancement Opportunities: There may be opportunities for stream enhancement on the Mill Creek, however the limited diameter size of the trees may preclude opportunities at this time. Further assessment and collaboration will be done with ODFW biologists and the Sunset Unit Forester.

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. Adequate RMA buffers will be left where required on all streams per the FMP standards. To protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods range from use of hay bales in road ditches, to "ditch-outs" away from streams, to complete shutdown of logging and hauling operations during times of heavy rainfall. There are no known high risk sites within the sale area. Any high-risk sites found will require at least one-end log suspension and cable logging. If any in-stream work is required with the sale, then the in-stream work will be conducted during in-stream periods established by ODFW.

VIII. T&E SPECIES CONSIDERATIONS:

The sale area has been surveyed for Northern Spotted Owls in 2005, with no responses, and is scheduled to be resurveyed in 2006.

The sale area has been surveyed for Marbled Murrelets in 2005, with no responses, and is scheduled to be resurveyed in 2006.

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

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

No significant High Landslide Hazard Locations appear on the topography as mapped. The initial assessment from the geotechnical specialists is low. If High Landslide Hazard Locations are located during field work the geotechnical consultant will be consulted.

X. RECREATION RESOURCES:

This area receives dispersed recreation, which includes hunting, fishing, camping, target shooting, and driving forest roads. There are no established recreation sites within the operation areas. The planned operations will only temporarily impact recreational road use.

XI. CULTURAL RESOURCES:

None.

XII. SCENIC RESOURCES:

The sale areas are not visible from any county or state highway. All forest roads accessing the sale areas are Level 3 classification.

XIII. OTHER RESOURCE CONSIDERATIONS:

None.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The lands in this timber sale are all classified "general" management.