

# Pre-Operations Report

**Operation Name: Loose Goose**

**County: Clatsop**

**Management Basin: Beneke**

**Table 1. Operation Areas, Types and Acres**

Area	Type of Operation	Gross Acres	Net Acres
1	Partial Cut - Moderate	327	286
2	Modified Clearcut	115	107
3	Modified Clearcut	59	50
4	Partial Cut - Heavy	45	43
5	Partial Cut - Heavy	155	133
6	Modified Clearcut	113	104
Total	Modified Clearcut	287	261
Total	Partial Cut	527	462
Total		814	723

## **I. PHYSICAL DESCRIPTION OF OPERATION AREA:**

These sale areas are all located in the Beneke Basin. All sale areas are within the western hemlock vegetation zone. The landform is mostly gentle to moderate slopes, with Areas 1, 2, 5, and 6 containing some steep portions. The sale areas are located at or near the headwaters of Beneke Creek and Walker Creek. The soil types present are primarily Tillamook (Ty), Bradwood (Bq), and Keasy (Ky). These soils are comprised of deep, well-drained, medium textured soils. The underlying bed rock is blocky, or less frequently fine grained sandstones. Site indices are 130-140 ft. for Douglas-fir and 110 ft. for western hemlock.

The sale is located along the gentle ridges that divide Beneke Creek and Walker Creek. Areas 5 and 6 and the north portion of Area 1 drain into Walker Creek and have some steep slopes mostly along the stream. Area 2 and the south ½ of Area 1 drain into Beneke Creek and have some steep slopes also mostly along the stream. The sale is underlain by sedimentary rocks of the informal Northrop Creek formation.

## **II. CURRENT STAND CONDITION:**

**Area 1:** The current stand is a 60 year old Douglas-fir dominant mixed conifer stand with patches of red alder. The majority of the stand is classified as understory development (UDS) with 69 acres classified as closed single canopy (CSC). The average stand density is 57%. The average DBH is 16 inches. The

understory consists primarily of sword fern, vine maple, salmon berry, and huckleberry and some suppressed western hemlock.

**Area 2:** Approximately 56% of the current stand is 60 year old mixed conifer Douglas-fir dominant. Approximately 44% of the stand is 60 year old dominant red alder with a mix of Douglas-fir. The average stand density is 57%. The average DBH is 16 inches. The stand is classified as 100% UDS. The understory consists of sword fern, vine maple, huckleberry, salmon berry and Oregon grape.

**Area 3:** The current stand is 60 year old Douglas-fir dominant mixed conifer stand with inclusions of red alder. The stand is classified as UDS, with seven acres of the stand classified as CSC. The average stand density is 57%. The average DBH is 16 inches. The understory consists of sword fern, vine maple, salmon berry and huckleberry.

**Area 4:** This areas stand consists of 60 year old Douglas-fir, some mixed conifers, with red alder present. The stand is classified as UDS, with six acres of the stand classified as CSC. The average DBH is 16 inches. The average stand density is 57%. The understory consists of sword fern, vine maple, salmon berry and huckleberry.

**Area 5:** This area consists of 60 year old Douglas-fir dominant mixed conifer with pockets of red alder. The stand is classified as 75 acres being UDS with 59 acres of CSC. The average stand density is 62%. The average DBH is 16 inches. The understory consists of sword fern, vine maple, salmon berry and huckleberry.

**Area 6:** This area consists of 60 year old western hemlock dominant mixed conifer stand with red alder present in pockets and in the draws. The stand is classified as CSC, and has nine acres classified as UDS. The average stand density is 68%. The average DBH is 17 inches. The understory consists of sword fern, vine maple, salmon berry and huckleberry.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Acres <sup>2</sup>
1	PC-M	23665	DF, WH	60	16	218	162	57	217
		1097	WH, DF	53	18	169	99	41	63
		1063	DF, WH	56	16	311	221	78	6
		Target <sup>3</sup>	DF, WH		18	130-160	90	25-30	286
2	MC	23665	DF, WH	60	16	218	162	57	60
		23691	RA, DF	59	15	215	179	57	47
		Target <sup>3</sup>	DF, WH, WRC				5		107
3	MC	23665	DF, WH	60	16	218	162	57	43
		1027	WH, DF	62	17	170	108	42	3
		1113	DF, WH, RA	52	16	246	176	62	4
		Target <sup>3</sup>	DF, WH, WRC				5		50
4	PC-H	23665	DF, WH	60	16	218	162	57	37
		1027	WH, DF	62	17	170	108	42	4
		1142	WH, DF	62	18	320	183	77	2
		Target <sup>3</sup>	DF, RA		20	110-140	65	20-30	43
5	PC-H	23665	DF, WH	60	16	218	162	57	54
		1029	WH, DF	65	15	286	224	74	28
		1030	RA	52	22	68	27	20	4
		1034	WH, DF	58	16	234	178	60	6
		1045	DF, WH	55	21	278	117	63	20
		1048	WH, DF	67	17	217	133	53	21
		Target <sup>3</sup>	DF, RA		18	110-140	80	20-30	133
6	MC	23665	DF, WH	60	16	218	162	57	9
		1034	WH, DF	58	16	234	178	60	11
		1035	WH, DF	56	16	300	224	76	23
		1036	DF, WH, RA	59	15	254	222	89	10
		1045	DF, WH	55	21	278	117	63	14
		1062	WH, DF	61	23	263	95	63	37
		Target <sup>3</sup>	DF, WH, WRC				5		104

<sup>1</sup> The source of stand inventory information is SLI 2005 and OSCUR from 2002. Age shown as of 2005.

<sup>2</sup> The acres are based on GIS and exclude roads, streams buffers, reserve areas, etc.

<sup>3</sup> The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

### **III. DESIRED STAND CONDITION/VISION:**

**Areas 1, 2, 3, 6,** and the southern 60 acres of **Area 5** do not have a designated complex desired future condition. The desired conditions of these stands are healthy vigorous stands of mixed conifer and hardwoods.

**Areas 2, 3, and 6** are modified clearcuts. 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 in these areas. The stands will be planted with a

mixture of conifer species. It is anticipated that some natural regeneration of western hemlock and red alder will also occur. 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.

**Area 4** and the northern 95 acres of **Area 5** are classified as Older Forest Structure (OFS). After the entry, in 5-10 years, the stand will be a predominately Douglas-fir overstory with some western redcedar, western hemlock, and red alder in the understory. There is also some ground vegetation developing in the more open areas. When the stand reaches OFS in 20 to 40 years or when the larger trees reach 32 inches DBH, Douglas-fir will still be the dominate species in the overstory. The understory layers will be composed of western hemlock and western redcedar. Red alder and vine maple will be present in scattered openings. Snags and downwood will be adequate to meet OFS requirements.

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Acres
1	23655	UDS	LYR	General	217
	1097	CSC	UDS	General	63
	1063	CSC	UDS	General	6
2	23691	UDS	REG	General	47
	23665	UDS	REG	General	60
3	23665	UDS	REG	General	43
	1027	CSC	REG	General	3
	1113	CSC	REG	General	4
4	23665	UDS	LYR	OFS	37
	1027	CSC	UDS	OFS	4
	1142	CSC	UDS	OFS	2
5	23665	UDS	LYR	General	54
	1029	CSC	CSC	OFS	28
	1030	UDS	LYR	OFS	4
	1034	CSC	UDS	OFS	6
	1045	CSC	UDS	OFS	20
	1048	UDS	LYR	OFS	21
6	23665	UDS	REG	General	9
	1034	CSC	REG	General	11
	1035	CSC	REG	General	23
	1036	CSC	REG	General	10
	1045	CSC	REG	General	14
	1062	CSC	REG	General	37

<sup>1</sup> 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** will be automark thinned to a stand density of 25 to 30%. Minor species and any hardwood patches will be reserved. This unit has a "General" DFC.

**Areas 2, 3, and 6** are modified clearcuts that will be replanted with a mixture of conifer species. It is anticipated that red alder will naturally seed in portions of exposed to mineral soil. These units have a "General" DFC.

**Area 4** will be automark thinned to an approximate stand density range of 20 to 30%. This area will be thinned to a level that will develop the existing CSC/UDS condition into a UDS/LYR condition and assist in the development of OFS. The benefits to OFS structure of specifying an upper and/or lower diameter limit will be examined during sale layout. Alternative prescriptions will be implemented at the patch scale. These prescriptions could include patch cuts, heavier thinning, or no-harvest areas. To get to the desired stand structure of OFS will likely require additional thinning.

**Area 5** will be automark thinned to a stand density of 20 to 30%. Minor species will be reserved. Hardwood will be thinned throughout area, with the biggest and best species favored. The result will be increased growth to individual trees and development or maintenance of conifer and deciduous understory species, as the more open tree canopy allows light to reach the forest floor. To get to the desired stand structure of OFS will likely require additional thinning.

*Snags:* In all areas, all existing snags will be retained unless deemed to be safety hazards. In MC areas, if pre-sale activities determine that fewer than two hard snags per acre exist, opportunities for snag creation or leaving additional live green trees will be implemented to supplement landscape snag levels as defined by the Forest Management Plan. 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. In PC Areas 4 and 5 post harvest snag creation will occur in order to accelerate this stand toward an OFS condition.

*Green Trees:* In MC areas, an average of five to seven green 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 at least 25% in the uplands and placing some within stream buffers and outer RMA 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, 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 downed wood levels. In the partial cut area, to increase down wood levels, operations will be required to top trees prior to yarding and to yard only merchantable log segments to roadsides.

Site preparation will be provided by the cable harvesting activities. Aerial applied herbicides may be prescribed to portions of these areas to ensure establishment of planted or natural regeneration. Areas will be planted at 300 -350 trees per acre with the following species: 55% Douglas-fir, 40% western hemlock, and 5% western redcedar. Animal damage through big game browse is anticipated to be high. Tree protection will be prescribed to the newly planted conifer species; Douglas-fir will receive paper bud caps and western red cedar will receive tubes at initial planting.

**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 <sup>rd</sup>	

	Conifer	Hardwood	Total
Net Volume (MBF)	11,418	1,842	13,260
Stumpage Value (\$/MBF)	\$275	\$300	
Estimated Gross Value	\$3,139,950	\$552,600	\$3,692,550
		Project Costs:	\$415,000
		Estimated Net Value:	\$3,277,550

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

Access to the harvest site will be from Wild Goose Road and Kalina Tie-Through Road. The haul route will be from the sale areas off Wild Goose Road and Kalina Tie-Through Road down Trailover Road to Beneke Road and out Beneke Creek County Road to Highway 202. Approximately 3.9 miles of new road will be constructed for harvest purposes. Approximately 6.4 miles of road improvement will be conducted.

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 when constructing the logging plan.

**Table 5. Transportation Management Summary (Miles).**

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	2.5	1.0	0.4
Improve	0	6.4	0	0
Maintain	0	12.0	2.0	0
Close/Block	0	0	0	0
Vacate	0	0	0	0.4

**VII. AQUATIC RESOURCES AND WATER QUALITY:**

*Type F and Domestic Use Streams:* **Area 1** in the north, borders a medium Type F, unnamed tributary of Walker Creek for approximately 4,250 feet. The south portion of the sale area borders a medium Type F, unnamed tributary of Beneke Creek for approximately 460 feet.

**Area 2** borders Beneke Creek, a medium Type F creek for approximately 1,120 feet in the east portion of the sale area. In the south portion a medium Type F, unnamed tributary of Beneke Creek borders the sale area for approximately 3,300 feet.

**Area 5** in the north borders Walker Creek a small Type F, for approximately 1,190 feet. In the south, borders a medium Type F, unnamed tributary of Walker Creek for a distance of approximately 1,660 feet.

**Area 6** has a medium Type F, unnamed tributary of Walker Creek adjacent to the east and southern boundary for a distance of approximately 4,820.

*Type N Streams:* There are perennial Type N streams located within all the sale areas.

*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. 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.

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.

The planned operation is in proximity to streams in which listed fish are present. A Type F stream that contains listed fish (Coho) is adjacent to access roads to the sale. Therefore, per ODF's Salmon Protection Policy for State Forest Operations, contract provisions will be included to reduce the likelihood of adverse effects on listed fish. Specific standards will include the following: hauling on roads which are in proximity to streams in which "listed" fish are present would only be allowed during weather conditions and use levels commensurate with the capabilities of road drainage systems.

If any in-stream work is required with this sale, it will be conducted during in-stream work periods established by ODFW.

ODFW Biologists have no projects scheduled for this area at this time.

#### **VIII. T&E SPECIES CONSIDERATIONS:**

All sale areas were surveyed to protocol for Marbled Murrelets and Northern Spotted Owls in 2005 with no detections. Surveys are planned for both species in 2006.

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:**

The topographic map indicates that there are limited high landslide hazard locations along the streams in Areas 1, 2, 5, and 6. The risk is moderate for these areas. The geotechnical specialist may be consulted during sale layout in these areas where concerns arise.

#### **X. RECREATION RESOURCES:**

This area receives little use. The Clatsop State Forest Recreation Plan does not list any specific activities for this portion of the basin.

#### **XI. CULTURAL RESOURCES:**

No known cultural resources are within or adjacent to the operation.

#### **XII. SCENIC RESOURCES:**

All sale areas are of low visual sensitivity (level 3).

### **XIII. OTHER RESOURCE CONSIDERATIONS:**

Some areas within the sale area will require some property surveys or survey monument protection measures. The requirements are as follows: **Area 4** - The section line to Sections 3 and 4 was trued, blazed, and posted (TB&P) in 1992. Blazes need to be found and painted. The TB&P is along the west boundary of the sale area. The survey was completed by Keenon for Cavenham.

Easements will have to be obtained from Weyerhaeuser for their Elk Mt. Mainline for 4.5 miles and to build approximately two stations of dirt road through the adjacent Weyerhaeuser clear-cut to access the landing that will be needed to harvest this unit.

**Area 5** - The Section line between Sections 3 and 34 was TB&P in 1996. Blazes need to be found and painted. The TB&P is along the north boundary of the sale area. The North  $\frac{1}{4}$  corner to Section 3 is along the north boundary of the sale area. This corner will need to be protected. The corner was found by Metcalf in 1996.

**Area 6** - The Section line to Sections 3 and 34 was TB&P in 1996. Blazes need to be found and painted. The TB&P is along the north boundary of the sale area. The standard SE corner to Section 34 is along the north boundary of the sale area. This corner will need to be protected. The corner was found by Metcalf in 1996.

### **XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

All acres in Areas 1-6 are classified as "general management."