

# Pre-Operations Report

**Operation Name: South Marlow Switch**

**County: Coos**

**Management Basin: 10**

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

Area	Type of Operation	Gross Acres	Net Acres
1	Clearcut	51	49
2	Clearcut	30	28
3	Clearcut	24	22
Total		105	99

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

This operation is a three-unit timber sale totaling 99 net acres. This timber sale is located on the western slope of the Coast Range in the Marlow Creek and West Fork Millicoma River watersheds within Elliott State Forest Management Basin 10. This timber sale area is in close proximity to the Pacific Ocean, which has a dominant influence on the climate. The average annual rainfall is between 70-75 inches. Temperatures range from 20-75 degrees fahrenheit throughout the year. This timber sale has an elevation of 300 to 1240 feet above sea level with slopes ranging from 45 percent to over 85 percent. Area 1 is dominantly a westerly aspect with some south and north faces, Area 2 has a southwest aspect, and Area 3 has an easterly aspect with some south faces. Eocene sedimentary rocks underlie the area. Soil types consist of Preacher-Bohannon and Preacher-Blachly loams with some Milbury-Bohannon-Umpcoos associations. Slopes in all units are generally steep with some gentler terrain.

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

The timber sale is second growth Douglas-fir that originated after logging which occurred from 1900 through the 1930's. It is composed of 72 to 99 year-old Douglas-fir with a minor component of red alder and scattered understory hemlock trees, and approximately 8 acres of 35 year-old Douglas-fir. Table 2 contains stocking, size and age information for all the areas in this timber sale. There are few hard snags in the stand. Stand health is satisfactory which is typical for the Elliott Forest. The sale area is located outside of the current area of concern for Swiss needle cast.

**Table 2. Stand Inventory Information**

Area	Prescription	Veg Code <sup>1</sup>	Species	Age in 2004	DBH	BA	TPA	SDI	Acres <sup>2</sup>
1	CC	1799	DF, RA	35	10	93	159	28	7
1	Target <sup>3</sup>	1799	DF, RA	35	11	1	3	1	7
1	CC	1800	DF, CX	99	17	286	184	70	42
1	Target <sup>3</sup>	1800	DF, CX	99	15	3	3	1	42
2	CC	1763	DF, RA	72	17	183	117	45	20
2	Target <sup>3</sup>	1763	DF, RA	72	15	3	3	1	20
2	CC	1796	DF, WH	74	16	278	191	69	8
2	Target <sup>3</sup>	1796	DF, WH	74	14	3	3	1	8
3	CC	1763	DF, RA	72	17	183	117	45	22
3	Target <sup>3</sup>	1763	DF, RA	72	15	3	3	1	22

1. The source of stand inventory information is (OSCUR) from 2000 records.

2. The acres are based on GIS, and exclude interior 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 FUTURE CONDITION:**

The desired condition is a young age class stand to provide early successional habitat in accordance with the Balanced Landscape strategy of the Elliott State Forest Management Plan. It will be composed of mainly Douglas-fir and may have a smaller component of other conifer species including hemlock and/or red cedar. Red alder will also naturally regenerate in the stand. Green trees retained during this operation will provide for multi-story stand structures valuable for wildlife.

**Table 3. Stand Structure Information (Does not apply Elliott State Forest)<sup>1</sup>**

#### **IV. PROPOSED MANAGEMENT PRESCRIPTION:**

The prescription for this sale is to harvest most of the overstory, leaving standing trees within buffer areas and scattered in selected locations in or along the edge of the sale unit.

Site Preparation and Planting - Site preparation will be achieved by yarding disturbance and treating residual brush with herbicide prior to planting. The site will be planted with conifer seedlings at approximately 400-500 trees per acre.

Green Tree Retention - A minimum of about 297 trees (about 3 per acre) will be left in or adjacent to Areas 1, 2 and 3. Emphasis will be given to retention of conifer species other than Douglas-fir. Some of these trees will be topped for snag creation. Single green trees will not be left unless localized soil conditions provide for wind firmness and logging conditions are suitable. The location of retained trees will be determined during the sale prep process. Emphasis may be given to widening riparian management areas. During sale layout, the timber sale boundary may be adjusted to include small areas of the adjacent Public Safety Deferral area to provide for green tree retention.

Snag Retention and Creation - Existing snags within the sale area will be left, with the exception of those that endanger work crews. Tops will be blown or sawn off green trees to leave approximately 25 topped trees in Areas 1 (about one tree per 2 acres harvested), and 25 topped trees in Area 2 and Area 3 (about one tree per 2 acres harvested).

Down Log Retention - At least 297 logs (3 logs per acre harvested) will be left in or adjacent to Areas 1, 2 and 3. Down logs shall meet the following minimum specifications: 16 feet in length and 12 inches diameter at the large end.

Burning - Portions of the sale may be burned depending on the amount and distribution of the slash and timing of sale completion. The main purpose of this type of burn is to provide for biological diversity and improved big game forage rather than site preparation. However, portions of the sale may be burned, if planting spots are too few to attain adequate stocking.

**V. ESTIMATED TIMBER AND REVENUE OUTPUTS:**

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		X
Planned Quarter:		4	

	Conifer	Hardwood	Total
Net Volume (MBF)	3,445	282	3,727
Stumpage Value (\$/MBF)	450	365	
Estimated Gross Value	1,550,250	102,930	1,653,180
		Project Costs:	60,000
		Estimated Net Value:	1,593,180

**VI. HARVESTING AND ACCESS CONSIDERATONS:**

All legal access to the sale is obtained and there are property lines needing to be surveyed prior to sale layout. The western and southern property boundary of Area 1 will need to be marked on the ground by the District Engineering Team prior to posting the sale boundary. Access to portions of Areas 1, 2 and 3 are from the 1110 road. Dirt spurs will require improvement and will be waterbarred and blocked at the completion of operations. Winter harvesting will require purchaser supplied rock. New landings and short access spurs may be constructed in Areas 1 and 2. Final locations will be determined during the sale preparation process. Access to the remaining portions of Area 2 will be from the 1100 road. The rocked collector spurs are in good shape and will require only maintenance or minor improvement. The segment of the 1100 rocked spur that is within/adjacent to Area 2 will be examined to determine if pullback of sidecast is necessary. The 1110 dirt spur in Areas 1 will be evaluated for vacating and for the need for any sidecast pull back since this road was built prior to full containment construction requirements. Final stockpile requirements will be determined during the timber sale preparation process.

All the sale areas will be cable yarded up hill. Full suspension will be required over stream channels and single end suspension on the remainder of the sale area. Trees will be felled parallel or away from the residual trees and Riparian Management Areas.

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

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0.0	0.0	0.0	0.2
Improve	0.0	0.0	0.0	0.0
Maintain	0.0	0.0	1.5	0.0
Close/Block	0.0	0.0	0.0	1.5
Vacate	0.0	0.0	0.0	0.0

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

Riparian areas along streams will be managed to support properly functioning aquatic habitats over time by applying the riparian management area (RMA) standards of the Northwest Oregon State Forests Management Plan. These standards are planned for adoption in the revised Elliott State Forest Management Plan. The minimum standards used for riparian buffers are those listed in the Elliott State Forest Management Plan.

The sale area is located within the Marlow Creek watershed, a large size Type F tributary of the East Fork Millicoma River. The stream associated with this sale was surveyed to ODFW protocol for fish presence in 1997 and 2000. All drainages associated with the sale area were field surveyed during the 2004 summer low flow period to determine the stream channel extent and whether streamflow is perennial or seasonal. Area 1 has six small Type N seasonal streams flowing from it to the West Fork Millicoma River. A small Type N perennial bisects Areas 2 and 3 and then transitions to a small type F at the bottom of Area 2 near the 1100 road. Remaining drainages in the sale area are classified as small seasonal Type N's.

There are no known water rights within or downstream of the proposed operation.

A written plan will be prepared in accordance with the Forest Practice Act for operations within 100 feet of a Type F stream. Cable layouts through or over buffer strips are needed to provide for adequate suspension of logs. To protect water quality, full suspension will be required over stream channels and single end suspension where feasible on the rest of the sale area. 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, and monitoring and managing logging and hauling operations during times of heavy rainfall.

All road construction and improvement will be done during the dry season and excavated material will be deposited on stable slope locations without the possibility of entering stream channels. Areas of bare soil associated with road and landing construction will be grass seeded when operations are completed.

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

The older habitat within this sale area may be suitable for certain T and E species. This sale is planned under the standards of the Elliott State Forest Management and Habitat Conservation Plans and other Oregon Department of Forestry (ODF) policy. The specific measures are as follows:

NSO Habitat Retention: There is no minimum acreage for NSO nesting, roosting, and foraging habitat in basin 10, above the required reserve acres. Reserve acres in this basin include 844 acres (17%) that will be continually retained in riparian management areas, habitat conservation areas and other conservancy acres. Fifty percent of this basin (2465 acres) must provide dispersal habitat. After this sale plan, there will be about 3764 acres of dispersal habitat retained which includes 82 acres of in-growth in 2006 and 45 acres of in-growth in 2007.

Marbled Murrelet - The current sale areas were surveyed according to protocol standards in 2005 and will be surveyed again in 2006. Completed surveys have shown no occupancy. Area 2 is within 330' of a Marbled Murrelet Management Area. Oregon Department of Forestry's Southern Oregon Area Biologist will determine the application of seasonal restrictions during the sale layout to comply with ODF's policies for the Marbled Murrelet.

Bald Eagle, Other - There are no bald eagles or other listed animal species in the vicinity of this sale.

Salmon and Steelhead – Area 2 of the sale is 100 feet above a Type F stream. A written plan will be prepared in accordance with the Forest Practice Act for operations within 100 feet of a Type F stream. Cable layouts through or over buffer strips are needed to provide for adequate suspension of logs. To protect water quality, full suspension will be required over stream channels and single end suspension where feasible on the rest of the sale area. Riparian areas along streams will be managed to support properly functioning aquatic habitats over time by applying the riparian management area (RMA) standards of the Northwest Oregon State Forests Management Plan. These standards are planned for adoption in the revised Elliott State Forest Management Plan. This sale is a possible candidate for fish habitat log stockpile replenishment.

Plants - 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 (ONHP) database of known listed plant locations. No listed plant records were identified within the sale area.

Fragmentation - The sale areas are isolated residual stands or are located on the edge of a contiguous block of mature timber and does not increase fragmentation

of interior habitat.

#### **IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:**

This sale area has had an office review by an ODF geotechnical specialist. A closer examination will be made during the sale layout process to determine if other site specific protection measures will be necessary. In particular, a 3 acre portion in the designated Public Safety Area, to the South of Area 1, will be reviewed further in the field to determine whether it meets forest practice specifications for harvest.

Area 1: On the northern two-third of the unit slopes meet criteria for high landslide hazard locations. The basin has hillslope and channel characteristics conducive for debris flows. There are indications of previous debris flow deposition in the type N stream draining this portion of the unit during the 1996 storm and deposition from an earlier event into the West Fork Millicoma River.

Areas 2 and 3: Slopes appear to meet criteria for high landslide hazard locations. The basin has hillslope and channel characteristics conducive for debris flows. Relatively small debris flows originating in the unit are likely to deposit at the road fill; however culvert blockage may occur. A large debris flow is likely to overwhelm the fill and travel down the type F reach of the tributary. The likelihood of delivery to Marlow Creek is moderate; the channel appears to lose confinement near the confluence with Marlow Creek and the 1000 road is likely to capture additional debris flow material.

To minimize yarding impacts on the slopes, single end suspension cable yarding will be required. Roads will be located on ridge-crests as much as possible and any steep sidehill portions will be constructed with full bench end-haul design and construction. Construction will be done during the dry season.

**X. RECREATION RESOURCES:**

The most common recreation for this area is hunting and dispersed undeveloped recreation. Harvesting of these units will provide forage area to help promote healthy deer and elk populations. In addition, areas of bare soil around road edges and landings will be grass seeded after logging to provide forage. Surrounding forest types provide escape cover. No conflict is seen with respect to the undeveloped, dispersed recreation usage of the forest.

**XI. CULTURAL RESOURCES:**

There are no cultural sites associated with this sale.

**XII. SCENIC RESOURCES:**

The units are not within any scenic management areas. There are no scenic management constraints for this sale. No significant conflicts with users are anticipated.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

There are no other known resource considerations associated with this sale.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

**Table 6. Land Use Classification Summary**

Area	Production	Noncommercial Rocky
1	37	12
2	28	0
3	22	0

This table summarizes the acres in each land use class within the operation.