

# Pre-Operations Report

**Operation Name: Joe Knife**  
**County: Douglas**  
**Management Basin: 12/13**

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

Area	Type of Operation	Gross Acres	Net Acres
1	CC	37	34
2	CC	10	8
3	CC	14	12
Total		61	54

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

This operation is a three-unit timber sale totaling 54 net acres. This timber sale is located on the western slope of the Coast Range. Areas 1 and 2 are located in the Joe's Creek watershed within the Elliott State Forest Management Basin 12. Area 3 is located in the Knife Creek watershed within the Elliott State Forest Management Basin 13. This timber sale is in close proximity to the Pacific Ocean, which has a dominant influence on the climate. The average annual rainfall is between 95-105 inches. Temperatures range from 32-76 degrees fahrenheit throughout the year. This timber sale has an elevation of 900 to 1440 feet above sea level with slopes ranging from 25 percent to over 90 percent. Area 1 has a variety of aspects including east, west and south facing slopes, slope gradients are variable; relatively gentle adjacent to the 2000 road and very steep immediately above Joe's Creek. Area 2 has predominantly southwest and northwest facing slopes; the lower two-thirds of the unit is very steep above Joe's Creek. Slopes in Area 3 have mostly a southeasterly aspect: the lower two-third of the unit is steep above Knife Creek. Eocene age sedimentary rocks underlie the area. Soil types consist of Preacher-Bohannon loams with some Milbury-Bohannon-Umpcoos association throughout. Slopes in all three units are generally steep.

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

The timber sale is second growth Douglas-fir that originated after the Coos Bay fire of 1868. It is composed of 109 to 134 year-old Douglas-fir with a minor component of red alder and scattered understory hemlock. 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	1088	DF,WH	109	22	277	105	61	13
1	CC	1100	DF,WH	123	24	192	59	40	5
1	CC	1138	DF,WH	123	21	304	126	69	16
	Target <sup>3</sup>	1088,1100,1138	DF,WH, WRC		18	8	3	1	34
2	CC	1140	DF,WH	134	24	242	73	51	8
	Target <sup>3</sup>	1140	DF,WH, WRC		20	8	3	1	8
3	CC	1413	DF,WH	114	24	186	58	39	12
	Target <sup>3</sup>	1413	DF,WH, WRC		20	8	3	1	12

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 162 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.

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 27 topped trees in Areas 1, 2 and 3 (about one tree per 2 acres harvested).

Down Log Retention - At least 162 logs (3 logs per acre harvested) will be left in or adjacent to Areas 1, 2 and 3 in accordance with the Elliott State Forest Management Plan. 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
0%	100%		X
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	2,970	54	3,024
Stumpage Value (\$/MBF)	450	365	
Estimated Gross Value	1,336,500	19,710	1,356,210
		Project Costs:	50,083
		Estimated Net Value:	1,306,127

**VI. HARVESTING AND ACCESS CONSIDERATONS:**

All legal access to the sale is obtained and there are no property lines needing to be surveyed, a quarter corner near Area III needs to be blazed prior to operations. Access to Areas 1 and 2 will be from the 2000 road. The 2000 road is a collector road which is in good shape and will require only maintenance. Access to Area 3 will be from the 7108 road, a dirt spur. This road 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 3. Final locations will be determined during the timber sale preparation process. The segment of the 2000 collector that is within/adjacent to Area 1 will be examined to determine if pullback of sidecast is necessary. Unnumbered dirt spurs in Areas 1 and 3 will be evaluated for vacating and for the need for any sidecast pull back. Final stockpile requirements will be determined during the timber sale preparation process.

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. Area 2 will be cable yarded from landings in Area 1.

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

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0.0	0.0	0.0	.1
Improve	0.0	0.0	0.0	.46
Maintain	0.0	.64	0.0	0.0
Close/Block	0.0	0.0	0.0	.56
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.

Areas 1 and 2 are located within the Joe's Creek watershed, a medium Type F tributary of the West Fork Millicoma River. Area 3 is within the Knife Creek watershed, a large Type F tributary of the West Fork Millicoma River. Streams associated with this sale were surveyed to ODFW protocol for fish presence in 1997 and 2005. All drainages associated with the sale area were field surveyed during the 2005 summer low flow period to determine the stream channel extent and whether streamflow is perennial or seasonal. Opportunities for in-stream large wood placement exist in Knife Creek during harvest operations. Areas 1, 2 are adjacent to a small Type F perennial stream. Area 1 has small Type N seasonal streams flowing from it. Area 3 is adjacent to a large Type F perennial.

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:

Basin 12 - There is no minimum acreage for NSO nesting, roosting, and foraging habitat in this basin above the required reserve acres. Reserve acres in this basin include 926 acres (19%) that will be continually retained in riparian management areas, habitat conservation areas and other conservancy acres. Fifty-percent of this basin (2484 acres) must provide dispersal habitat. After this sale plan, there will be about 536 acres of dispersal habitat retained above the minimum, including 159 acres of in-growth in 2006 and 126 acres of in-growth in 2007.

Basin 13 - There is no minimum acreage for NSO nesting, roosting, and foraging habitat in this basin above the required reserve acres. Reserve acres in this basin include 984 acres (17%) that will be continually retained in riparian management areas, habitat conservation areas and other conservancy acres. Fifty percent of this basin (2984 acres) must provide dispersal habitat. After this sale plan, there will be about 882 acres of dispersal habitat retained, above the minimum, including 72 acres of in-growth in 2006 and 278 acres of in-growth in 2007.

Marbled Murrelet - The sale areas were surveyed according to protocol standards during the 2004 and 2005 survey seasons. These surveys showed no occupancy. The sale is within 330' of the Benson Headwaters and the Fish Knife Marbled Murrelet Management areas. 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 – All of the sale units are within 100 feet above Type F streams. 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.

Opportunities for placement of large wood have been identified for Area 3 where cable layouts cross Knife Creek. These placed log structures will create pools

and gravel beds, and improve wintering habitat. Locations and quantities of large wood placement will be identified during the sale preparation process with guidance from ODFW and the SOA Biologist. 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 a review by an ODF geo-tech specialist. A closer examination will be made during the sale layout process to determine if other site specific protection measures will be necessary. Generally, the lower portions of the slope (lower half to lower third) appear to meet criteria for classification as high landslide hazard locations (in the Tyee Core Area uniform slopes greater than 75% and/or planform concave slopes greater than 65%)

Area 1: One small stream drains this unit, which is judged to have moderate potential for debris flow initiation and transport to Joe's Creek. The steep slope above Joe's Creek appears likely to deliver an open-slope debris flow to the Joe's Creek.

Area 2: The steep slope above Joes Creek appears likely to deliver an open-slope debris flow to the creek.

Area 3: The steep slopes above the Knife Creek appear likely to deliver an open-slope debris flow to the stream.

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
1	34
2	8
3	12

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